



March 22, 2012

Brad Davis
Zia Engineering & Environmental
755 S Telshor Blvd Ste F-201
Las Cruces, NM 88011
TEL: (575) 993-6824
FAX (575) 532-1587

Order No.: 1203088

RE: HELSTF Construction Landfill

Dear Brad Davis:

DHL Analytical received 2 sample(s) on 3/9/2012 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.2 and NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "John DuPont".

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas & DoD Laboratory
Certification Number: T104704211-11-7 & DoD ELAP #ADE-1416 v2



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765 S. Telstar Blvd. Ste. F-201
 Las Cruces, NM 88011
 575-532-1526 u
 575-532-1587 f

#1203088

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NO.		PROJECT NAME		NO. OF CONTAINERS	ANALYSIS REQUESTED							REMARKS	
		HESSTP Construction Landfill			TOC	VOCs	GRO	SVOCs	DRC	Total Metals	Dissolved Metals		Anions
01	DATE 3-8-12	TIME 1410	SAMPLE ID HLSF 3839-HMW-008-0312	MATRIX Water	16	X	X	X	X	XXX	XX		
02	3-8-12	1410	HLSF 3839-HMW-008-0312-ms/ms	Water	16	X	X	X	X	XX	XX		ms/ms Sample
	3-8-12	1400	HLSF-3839-HMW-TB-0312	Water	2	X							
PROJECT INFORMATION		SAMPLE RECEIVED		405	1. RELINQUISHED BY: (SIG/NATURE) <i>Bradley T. Davis</i>		2. RELINQUISHED BY: (SIG/NATURE) <i>Jedex</i>		3. RECEIVED BY LAB: (SIG/NATURE)				
PROJECT MANAGER <i>Brad Davis</i>		TOTAL NO. OF CONTAINERS			(PRINTED NAME) <i>Bradley T. Davis</i> 3-8-12		(PRINTED NAME) <i>Jedex</i>		(PRINTED NAME) <i>3/8/12 1005</i>				
SHIPPING ID NO.		CHAIN OF CUSTODY SEALS		405	RECEIVED BY: (SIG/NATURE) <i>Jedex</i>		RECEIVED BY: (SIG/NATURE) <i>DBark</i>		(COMPANY) <i>3/8/12 1005</i>				
W/M: <i>Fed EX</i>		GOOD CONDITION/CHILLED <i>Therm#57</i>		24	(TIME/DATE) <i>3/8/12 1700</i>		(TIME/DATE) <i>3/8/12 1205</i>		(TIME/DATE)				
		CONFORMS TO RECORD			SPECIAL INSTRUCTIONS/COMMENTS: <i>Please See Attached Analyte List</i>								

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

**Analyte List – HELSTF Long-term Groundwater Monitoring
Semi-Annual Sampling List (Construction Landfill)**

HMW-08, HMW-32, HMW-34, HMW-35, HMW-59

Parameter	Reference Method	Container	Maximum hold time	Preservative
Water Quality	Conductivity pH Temperature Dissolved Oxygen ORP Turbidity	Field measured with YSI and turbidimeter	NA	NA
	Total Organic Carbon	415.1	40-mL VOA (3)	28 days H ₃ PO ₄ , pH<2 Chill to 4 °C
Organics	VOCs	8260	40-mL VOAs (3)	14 days HCl, pH<2 Chill to 4 °C
	SVOCs	8270	500 mL amber (2)	7 days Chill to 4 °C
	DRO	8015	500-mL amber (2)	14 days HCl, pH<2 Chill to 4 °C
	GRO	8015	40-mL VOAs (3)	14 days HCl, pH<2 Chill to 4 °C
Total Metals (RCRA 8)	Arsenic Barium Cadmium Chromium Lead	Selenium Silver Sodium Calcium Potassium Magnesium	6010/6020	500-mL polyethylene 6 months 28 days HNO ₃ , pH<2 Chill to 4 °C
	Mercury		7470A	
Dissolved Metals	Arsenic Barium Cadmium Chromium Lead	Selenium Silver Sodium Calcium Potassium Magnesium	6010/6020	500-mL polyethylene 6 months 28 days Field Filter HNO ₃ , pH<2 Chill to 4 °C
	Mercury		7470A	
Anions	Sulfate, Chloride, Alkalinity, pH	2320 4500	500-mL polyethylene	6 months Field Filter Chill to 4 °C

5 Primary Well Sample Sets

+ 1 Field Duplicate Sample Set

+ 1 Equipment Blank Sample Set

+ 1 ms/msd Sample Set

= 8 Total Sample Sets

From: (505) 532-1526
Zia Engineering

755 S. Telshor Blvd.
Suite Q-201
Las Cruces, NM 88011

Origin ID: LRU A



J1210111210025

Ship Date: 08MAR12
ActWgt: 50.0 LB
CAD: 102287640NET3250

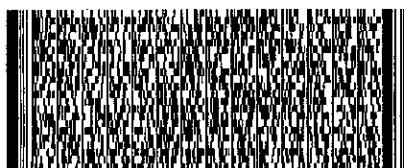
Delivery Address Bar Code



SHIP TO: (512) 388-8222
BILL SENDER
John Dupont
DHL Analytical
2300 DOUBLE CREEK DR

ROUND ROCK, TX 78664

Ref #: LOS-09-015 BG 33
Invoice #
PO #: Brad Davis
Dept #



TRK# 7981 4944 0279
[0201]

FRI - 09 MAR A1
PRIORITY OVERNIGHT

78664
TX-US
AUS

XH BSMA



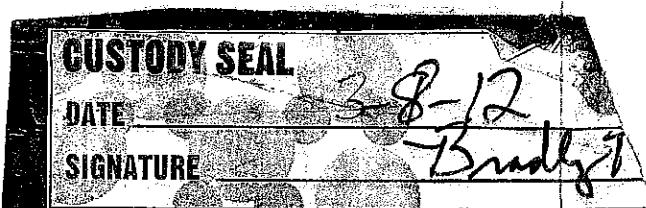
512G181D5/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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DHL Analytical

Sample Receipt Checklist

Client Name Zia Engineering & Environmental

Date Received: 3/9/2012

Work Order Number 1203088

Received by JB

Checklist completed by:



Signature

3/9/2012

Date

Reviewed by:



Initials

3/9/2012

Date

Carrier name: FedEx 1day

Shipping container/coolier in good condition? Yes No Not Present

Custody seals intact on shipping container/coolier? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Container/Temp Blank temperature in compliance? Yes No 2.4 °C

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted?



Checked by



Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: HELSTF Construction Landfill		Date: 3/22/2012					
Reviewer Name: Angie O'Donnell		Laboratory Work Order: 1203088					
Prep Batch Number(s): See Prep Dates Report		Run Batch: See Analytical Dates Report					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-Custody (C-O-C)					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				R1-01
R2	OI	Sample and Quality Control (QC) Identification					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
R3	OI	Test Reports					
		1) Were all samples prepared and analyzed within holding times?	X				
R4	O	2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?		X			
		7) Were % moisture (or solids) reported for all soil and sediment samples?		X			
		8) If required for the project, TICs reported?		X			
R5	OI	Surrogate Recovery Data					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R6	OI	Test Reports/Summary Forms for Blank Samples					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MQL?		X			R5-04
R7	OI	Laboratory Control Samples (LCS):					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R6-04
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R8	OI	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R7-03
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R9	OI	Analytical Duplicate Data					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R10	OI	Method Quantitation Limits (MQLs):					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs included in the laboratory data package?	X				
		Other Problems/Anomalies					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				R10-01
		2) Were all necessary corrective actions performed for the reported data?	X				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.

Laboratory Review Checklist (continued): Supporting Data

Project Name: HELSTF Construction Landfill		Date: 3/22/2012				
Reviewer Name: Angie O'Donnell		Laboratory Work Order: 1203088				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴
S1	OI	Initial Calibration (ICAL)				
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X			
		2) Were percent RSDs or correlation coefficient criteria met?	X			
		3) Was the number of standards recommended in the method used for all analytes?	X			
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X			
		5) Are ICAL data available for all instruments used?	X			
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X			
S2	OI	Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB)				
		1) Was the CCV analyzed at the method-required frequency?	X			
		2) Were percent differences for each analyte within the method-required QC limits?		X		S2-02
		3) Was the ICAL curve verified for each analyte?	X			
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X		S2-04
S3	O	Mass Spectral Tuning				
		1) Was the appropriate compound for the method used for tuning?	X			
		2) Were ion abundance data within the method-required QC limits?	X			
S4	O	Internal Standards (IS)				
		1) Were IS area counts and retention times within the method-required QC limits?	X			
S5	OI	Raw Data (NELAC section 1 appendix A glossary, and section 5.12)				
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X			
		2) Were data associated with manual integrations flagged on the raw data?	X			S5-02
S6	O	Dual Column Confirmation				
		1) Did dual column confirmation results meet the method-required QC?			X	
S7	O	Tentatively Identified Compounds (TICs)				
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X	
S8	I	Interference Check Sample (ICS) Results				
		1) Were percent recoveries within method QC limits?	X			
S9	I	Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions				
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X		S9-01
S10	OI	Method Detection Limit (MDL) Studies				
		1) Was a MDL study performed for each reported analyte?	X			
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X			
S11	OI	Proficiency Test Reports				
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X			
S12	OI	Standards Documentation				
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X			
S13	OI	Compound/Analyte Identification Procedures				
		1) Are the procedures for compound/analyte identification documented?	X			
S14	OI	Demonstration of Analyst Competency (DOC)				
		1) Was DOC conducted consistent with NELAC Chapter 5C?	X			
		2) Is documentation of the analyst's competency up-to-date and on file?	X			
S15	OI	Verification/Validation Documentation for Methods (NELAC Chap 5)				
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X			
S16	OI	Laboratory Standard Operating Procedures (SOPs)				
		1) Are laboratory SOPs current and on file for each method performed?	X			

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Signature Page

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

John DuPont – General Manager

Scott Schroeder – Technical Director


Signature

03/22/12

Date

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Lab Order: 1203088

CASE NARRATIVE

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.2 and NELAC.

Method SW6020 - Metals Analysis (total & dissolved)
Method SW7470A - Mercury Analysis (total & dissolved)
Method M8015D - DRO Analysis
Method M8015V - GRO Analysis
Method SW8270C- Semivolatile Organics (Some compounds are not NELAC Certified)
Method SW8260C - Volatile Organics
Method E300 - Anions Analysis
Method M2320 B - Alkalinity Analysis
Method M4500-H+ B - pH of a Water
Method M5310C - TOC Analysis

Exception Report R1-01

The samples were received and log-in performed on 3/9/2012. A total of 2 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

Exception Report R5-04

For Semivolatiles Analysis, analyzed on 3/12/2012, Benzoic Acid was detected in Method Blank-50902, due to a laboratory artifact. The associated sample may be biased high. No further corrective action was taken.

Exception Report R6-04

For Semivolatiles Analysis, analyzed on 3/12/2012, the recoveries of several compounds for the Laboratory Control Spike (LCS-50902) were slightly outside of the method control limits. These are flagged accordingly in the QC Summary report. These compounds are within method control limits in the associated ICV or are nondetect in the associated samples. No further corrective action was taken.

Exception Report R7-03

For Semivolatiles Analysis, analyzed on 3/12/2012, the recoveries of a few compounds for the Matrix Spike and Matrix Spike Duplicate (1203088-01 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary report. These compounds are within method control limits in the associated LCS or are nondetect in the associated samples. The reference sample selected

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Lab Order: 1203088

CASE NARRATIVE

for the QC sample was from this workorder. No further corrective action was taken.

For Volatiles Analysis, the recoveries of 2-Chloroethylvinylether and 2-Hexanone for the Matrix Spike and Matrix Spike Duplicate (1203088-01 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary report. This compound is within method control limits in the associated LCS. The reference sample selected for the QC sample was from this workorder. No further corrective action was taken.

For Trace and Dissolved Metals Analysis, the recoveries of several analytes for the Matrix Spike and Matrix Spike Duplicate (1203088-01 MS/MSD) were below the method control limits. This is flagged accordingly in the QC Summary report. These analytes are within method control limits in the associated LCS. The reference sample selected for the QC sample was from this workorder. No further corrective action was taken.

Exception Report R10-01

For Trace and Dissolved Metals Analysis, results for Sample HLSF-3839-HMW-008-0312 showed dissolved Magnesium and Potassium as slightly higher than the total Magnesium and Potassium . The results were within acceptable analytical variation limits.

Exception Report S2-02

For Volatiles Analysis, the recoveries of a few compounds for the Initial Calibration Verification (ICV-120309) were slightly below the method control limits. These are flagged accordingly in the QC Summary report. These compounds are within method control limits in the associated LCS. No further corrective action was taken.

For Semivolatiles Analysis, the recoveries of a few compounds for the Initial Calibration Verification (ICV-120312) were slightly outside of the method control limits. These are flagged accordingly in the QC Summary report. These compounds are within method control limits in the associated LCS or are nondetect in the associated samples. No further corrective action was taken.

Exception Report S2-04

For Metals Analysis, Magnesium was detected below the reporting limit in the Continuing Calibration Blank (CCB3-120319). This analyte was reported in the Method Blank, LCS/LCSD only, the associated sample was reanalyzed and reported for this analyte the following day. No further corrective action was taken.

Exception Report S5-01

For Volatile and Semivolatiles Analysis, some samples and/or standards were manually integrated.

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Lab Order: 1203088

CASE NARRATIVE

Please refer to the manual integration tables after the sequence reports for the full list of samples, standards, and the compounds that were manually integrated.

Exception Report S9-01

For Trace and Dissolved Metals Analysis, the recovery of Selenium for the Post Digestion Spike (1203088-01 PDS) was below the method control limits. This is flagged accordingly in the QC Summary report. This analyte is within method control limits in the associated Serial Dilution. No further corrective action was taken.

A summary of project communication follows:

DHL Analytical received the Project RFQ from the client on 12/29/09. Completed RFQ returned to client via email on 1/07/2010. Purchase Order/Terms and Conditions received and signed and approved by both parties on 01/25/2010.

Brad Davis of Zia requested a bottle kit via email from Jennifer Barker of DHL on 2/16/2012. A DHL BottleKit #3137 sent on 2/20/2012 via Lonestar Overnight, to arrive by 2/22/2012.

This sample delivery group arrived at DHL Analytical 3/9/2012. Sample summary sent via email from Log-in to client on 3/9/2012.

All hardcopies for the sample kit request, bill of lading for sample kit sent and login summary are kept in project folder.

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Lab Order: 1203088

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1203088-01	HLSF-3839-HMW-008-0312		03/08/12 02:10 PM	3/9/2012
1203088-02	HLSF-3839-HMW-TB-0312		03/08/12 02:00 PM	3/9/2012

Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1203088-01A	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/09/12 12:07 PM	50889
1203088-01B	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW5030C	Purge and Trap Water GC-Gas	03/16/12 09:49 AM	50997
1203088-01C	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	M5310C	TOC prep Aqueous	03/14/12 08:30 AM	50940
1203088-01D	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/15/12 08:32 AM	50958
	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/15/12 08:32 AM	50958
	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW7470A	Mercury Aq Prep, Total	03/15/12 01:37 PM	50979
1203088-01E	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/15/12 08:33 AM	50959
	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/15/12 08:33 AM	50959
	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW7470A	Mercury Aq Prep, Total	03/16/12 09:42 AM	50994
1203088-01F	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	M2320 B	Alkalinity Preparation	03/09/12 11:40 AM	50895
	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	E300	Anion Preparation	03/09/12 01:00 PM	50885
	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	M4500-H+ B	pH Preparation	03/09/12 10:40 AM	50888
1203088-01G	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW3510C	Aq Prep Sep Funnel: BNA	03/12/12 08:49 AM	50902
	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW3510C	Aq Prep Sep Funnel: BNA	03/12/12 08:49 AM	50902
1203088-01H	HLSF-3839-HMW-008-0312	03/08/12 02:10 PM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	03/14/12 09:24 AM	50939
1203088-02A	HLSF-3839-HMW-TB-0312	03/08/12 02:00 PM	Trip Blank	SW5030C	Purge and Trap Water GC/MS	03/09/12 12:07 PM	50889

Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1203088-01A	HLSF-3839-HMW-008-0312	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	50889	1	03/09/12 01:53 PM	GCMS7_120309B
1203088-01B	HLSF-3839-HMW-008-0312	Aqueous	M8015V	TPH Purgeable by GC - Water	50997	1	03/16/12 02:58 PM	GC4_120316A
1203088-01C	HLSF-3839-HMW-008-0312	Aqueous	M5310C	Total Organic Carbon	50940	1	03/14/12 10:24 AM	TOC_120314A
1203088-01D	HLSF-3839-HMW-008-0312	Aqueous	SW7470A	Total Mercury: Aqueous	50979	1	03/19/12 02:58 PM	CETAC_HG_120319A
	HLSF-3839-HMW-008-0312	Aqueous	SW6020	Trace Metals: ICP-MS - Water	50958	1	03/19/12 06:28 PM	ICP-MS2_120319B
	HLSF-3839-HMW-008-0312	Aqueous	SW6020	Trace Metals: ICP-MS - Water	50958	200	03/20/12 02:42 PM	ICP-MS3_120320B
1203088-01E	HLSF-3839-HMW-008-0312	Aqueous	SW6020	Dissolved Metals-ICPMs (0.45μ)	50959	200	03/20/12 02:53 PM	ICP-MS3_120320B
	HLSF-3839-HMW-008-0312	Aqueous	SW6020	Dissolved Metals-ICPMs (0.45μ)	50959	1	03/19/12 02:52 PM	ICP-MS3_120319B
	HLSF-3839-HMW-008-0312	Aqueous	SW7470A	Mercury Filtered (0.45μ)	50994	1	03/19/12 03:25 PM	CETAC_HG_120319A
1203088-01F	HLSF-3839-HMW-008-0312	Aqueous	M2320 B	Alkalinity	50895	1	03/09/12 12:09 PM	TITRATOR_120309B
	HLSF-3839-HMW-008-0312	Aqueous	E300	Anions by IC method - Water	50885	100	03/09/12 01:43 PM	IC2_120309A
	HLSF-3839-HMW-008-0312	Aqueous	M4500-H+ B	pH	50888	1	03/09/12 10:59 AM	TITRATOR_120309A
1203088-01G	HLSF-3839-HMW-008-0312	Aqueous	SW8270C	Semivolatiles by GC/MS - Water	50902	1	03/12/12 11:14 PM	GCMS9_120312C
	HLSF-3839-HMW-008-0312	Aqueous	SW8270C	Semivolatiles by GC/MS - Water	50902	1	03/19/12 05:23 AM	GCMS9_120318A
1203088-01H	HLSF-3839-HMW-008-0312	Aqueous	M8015D	TPH Extractable by GC - Water	50939	1	03/18/12 10:22 AM	GC15_120318A
1203088-02A	HLSF-3839-HMW-TB-0312	Trip Blank	SW8260C	8260 Water Volatiles by GC/MS	50889	1	03/09/12 02:18 PM	GCMS7_120309B

DHL Analytical

Date: 22-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Project No:
Lab Order: 1203088

Client Sample ID: HLSF-3839-HMW-008-0312
Lab ID: 1203088-01
Collection Date: 03/08/12 02:10 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER							
TPH-DRO C10-C28	<0.0500	0.0500	0.100		mg/L	1	03/18/12 10:22 AM
Surr: Isopropylbenzene	53.4	0	47-142	%REC	1	03/18/12 10:22 AM	
Surr: Octacosane	93.1	0	51-124	%REC	1	03/18/12 10:22 AM	
TPH PURGEABLE BY GC - WATER							
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	03/16/12 02:58 PM
Surr: Tetrachlorethane	107	0	74-138	%REC	1	03/16/12 02:58 PM	
MERCURY FILTERED (0.45μ)							
Mercury	<0.0000600	0.0000600	0.000200		mg/L	1	03/19/12 03:25 PM
TOTAL MERCURY: AQUEOUS							
Mercury	<0.0000600	0.0000600	0.000200		mg/L	1	03/19/12 02:58 PM
DISSOLVED METALS-ICPMS (0.45μ)							
SW6020							
Arsenic	0.0122	0.00200	0.00600		mg/L	1	03/19/12 02:52 PM
Barium	0.00924	0.00300	0.0100	J	mg/L	1	03/19/12 02:52 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	03/19/12 02:52 PM
Calcium	450	20.0	60.0		mg/L	200	03/20/12 02:53 PM
Chromium	0.0148	0.00200	0.00600		mg/L	1	03/19/12 02:52 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/19/12 02:52 PM
Magnesium	694	20.0	60.0		mg/L	200	03/20/12 02:53 PM
Potassium	64.5	20.0	60.0		mg/L	200	03/20/12 02:53 PM
Selenium	0.0721	0.00200	0.00600		mg/L	1	03/19/12 02:52 PM
Silver	<0.000600	0.000600	0.00200		mg/L	1	03/19/12 02:52 PM
Sodium	2570	20.0	60.0		mg/L	200	03/20/12 02:53 PM
TRACE METALS: ICP-MS - WATER							
SW6020							
Arsenic	0.0123	0.00200	0.00600		mg/L	1	03/19/12 06:28 PM
Barium	0.0107	0.00300	0.0100		mg/L	1	03/19/12 06:28 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	03/19/12 06:28 PM
Calcium	459	20.0	60.0		mg/L	200	03/20/12 02:42 PM
Chromium	0.0162	0.00200	0.00600		mg/L	1	03/19/12 06:28 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/19/12 06:28 PM
Magnesium	692	20.0	60.0		mg/L	200	03/20/12 02:42 PM
Potassium	63.7	20.0	60.0		mg/L	200	03/20/12 02:42 PM
Selenium	0.0734	0.00200	0.00600		mg/L	1	03/19/12 06:28 PM
Silver	<0.000600	0.000600	0.00200		mg/L	1	03/19/12 06:28 PM
Sodium	2570	20.0	60.0		mg/L	200	03/20/12 02:42 PM
SEMOVATILES BY GC/MS - WATER							
SW8270C							
1,2,4,5-Tetrachlorobenzene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM

Qualifiers:	* Value exceeds TCLP Maximum Concentration Level	B Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J Analyte detected between MDL and RL
MDL	Method Detection Limit	ND Not Detected at the Method Detection Limit
RL	Reporting Limit	S Spike Recovery outside control limits
N	Parameter not NELAC certified	Page 1 of 8

DHL Analytical

Date: 22-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Project No:
Lab Order: 1203088

Client Sample ID: HLSF-3839-HMW-008-0312
Lab ID: 1203088-01
Collection Date: 03/08/12 02:10 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - WATER							
		SW8270C					Analyst: DO
1,2-Diphenylhydrazine	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
1-Chloronaphthalene	<0.000200	0.000200	0.000800	N	mg/L	1	03/19/12 05:23 AM
1-Methylnaphthalene	<0.000200	0.000200	0.000800	N	mg/L	1	03/12/12 11:14 PM
1-Naphthylamine	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
2,4,5-Trichlorophenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2,4,6-Trichlorophenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2,4-Dichlorophenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2,4-Dimethylphenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2,4-Dinitrophenol	<0.00100	0.00100	0.00400		mg/L	1	03/12/12 11:14 PM
2,4-Dinitrotoluene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2,6-Dichlorophenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2,6-Dinitrotoluene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2-Chloronaphthalene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2-Chlorophenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2-Methylnaphthalene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2-Methylphenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2-Naphthylamine	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
2-Nitroaniline	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2-Nitrophenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
2-Picoline	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
3,3'-Dichlorobenzidine	<0.00100	0.00100	0.00400		mg/L	1	03/12/12 11:14 PM
3-Methylcholanthrene	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
3-Nitroaniline	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
4,6-Dinitro-2-methylphenol	<0.000600	0.000600	0.00200		mg/L	1	03/12/12 11:14 PM
4-Aminobiphenyl	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
4-Bromophenyl phenyl ether	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
4-Chloro-3-methylphenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
4-Chloroaniline	<0.000600	0.000600	0.00200		mg/L	1	03/12/12 11:14 PM
4-Chlorophenyl phenyl ether	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
4-Methylphenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
4-Nitroaniline	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
4-Nitrophenol	<0.00100	0.00100	0.00400		mg/L	1	03/12/12 11:14 PM
7,12-Dimethylbenz(a)anthracene	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
Acenaphthene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Acenaphthylene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Acetophenone	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Aniline	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Anthracene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Benzidine	<0.00200	0.00200	0.00600		mg/L	1	03/12/12 11:14 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

Page 2 of 8

DHL Analytical

Date: 22-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Project No:
Lab Order: 1203088

Client Sample ID: HLSF-3839-HMW-008-0312
Lab ID: 1203088-01
Collection Date: 03/08/12 02:10 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - WATER							
		SW8270C					Analyst: DO
Benzo[a]anthracene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Benzo[a]pyrene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Benzo[b]fluoranthene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Benzo[g,h,i]perylene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Benzo[k]fluoranthene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Benzoic acid	0.0173	0.00200	0.00600		mg/L	1	03/12/12 11:14 PM
Benzyl alcohol	<0.000600	0.000600	0.00200		mg/L	1	03/12/12 11:14 PM
Biphenyl	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Bis(2-chloroethoxy)methane	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Bis(2-chloroethyl)ether	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Bis(2-chloroisopropyl)ether	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Bis(2-ethylhexyl)phthalate	<0.00100	0.00100	0.00300		mg/L	1	03/12/12 11:14 PM
Butyl benzyl phthalate	<0.00200	0.00200	0.00600		mg/L	1	03/12/12 11:14 PM
Carbazole	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Chrysene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Di-n-butyl phthalate	<0.00200	0.00200	0.00600		mg/L	1	03/12/12 11:14 PM
Di-n-octyl phthalate	<0.00200	0.00200	0.00600		mg/L	1	03/12/12 11:14 PM
Dibenz(a,j)acridine	<0.00100	0.00100	0.00400	N	mg/L	1	03/19/12 05:23 AM
Dibenz[a,h]anthracene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Dibenzofuran	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Diethyl phthalate	<0.00200	0.00200	0.00600		mg/L	1	03/12/12 11:14 PM
Dimethyl phthalate	<0.00200	0.00200	0.00600		mg/L	1	03/12/12 11:14 PM
Dimethylphenethylamine	<0.00200	0.00200	0.00600		mg/L	1	03/19/12 05:23 AM
Diphenylamine	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
Ethyl methanesulfonate	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
Fluoranthene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Fluorene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Hexachlorobenzene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Hexachlorobutadiene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Hexachlorocyclopentadiene	<0.000600	0.000600	0.00200		mg/L	1	03/12/12 11:14 PM
Hexachloroethane	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Indeno[1,2,3-cd]pyrene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Isophorone	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Methyl methanesulfonate	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
N-Nitrosodi-n-propylamine	<0.000100	0.000100	0.000800		mg/L	1	03/12/12 11:14 PM
N-Nitrosodimethylamine	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
N-Nitrosodiphenylamine	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
N-Nitrosopiperidine	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
Naphthalene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
DF Dilution Factor
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
S Spike Recovery outside control limits

DHL Analytical

Date: 22-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Project No:
Lab Order: 1203088

Client Sample ID: HLSF-3839-HMW-008-0312
Lab ID: 1203088-01
Collection Date: 03/08/12 02:10 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - WATER							
					SW8270C		Analyst: DO
Nitrobenzene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
p-Dimethylaminoazobenzene	<0.000200	0.000200	0.000800	N	mg/L	1	03/19/12 05:23 AM
Pentachlorobenzene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Pentachloronitrobenzene	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
Pentachlorophenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Phenacetin	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
Phenanthrene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Phenol	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Pronamide	<0.000200	0.000200	0.000800		mg/L	1	03/19/12 05:23 AM
Pyrene	<0.000200	0.000200	0.000800		mg/L	1	03/12/12 11:14 PM
Pyridine	<0.000800	0.000800	0.00200		mg/L	1	03/12/12 11:14 PM
Surr: 2,4,6-Tribromophenol	97.2	0	42-124	%REC	1		03/19/12 05:23 AM
Surr: 2,4,6-Tribromophenol	120	0	42-124	%REC	1		03/12/12 11:14 PM
Surr: 2-Fluorobiphenyl	86.2	0	50-110	%REC	1		03/19/12 05:23 AM
Surr: 2-Fluorobiphenyl	98.8	0	50-110	%REC	1		03/12/12 11:14 PM
Surr: 2-Fluorophenol	65.8	0	20-110	%REC	1		03/12/12 11:14 PM
Surr: 2-Fluorophenol	65.2	0	20-110	%REC	1		03/19/12 05:23 AM
Surr: 4-Terphenyl-d14	88.2	0	51-135	%REC	1		03/19/12 05:23 AM
Surr: 4-Terphenyl-d14	102	0	51-135	%REC	1		03/12/12 11:14 PM
Surr: Nitrobenzene-d5	90.2	0	41-110	%REC	1		03/19/12 05:23 AM
Surr: Nitrobenzene-d5	90.0	0	41-110	%REC	1		03/12/12 11:14 PM
Surr: Phenol-d6	43.2	0	20-115	%REC	1		03/19/12 05:23 AM
Surr: Phenol-d6	36.8	0	20-115	%REC	1		03/12/12 11:14 PM
8260 WATER VOLATILES BY GC/MS							
					SW8260C		Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,1-Dichloroethene	0.000280	0.000200	0.00100	J	mg/L	1	03/09/12 01:53 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/09/12 01:53 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/09/12 01:53 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/09/12 01:53 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	03/09/12 01:53 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

DHL Analytical

Date: 22-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Project No:
Lab Order: 1203088

Client Sample ID: HLSF-3839-HMW-008-0312
Lab ID: 1203088-01
Collection Date: 03/08/12 02:10 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
		SW8260C					Analyst: KL
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/09/12 01:53 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	03/09/12 01:53 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 01:53 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 01:53 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 01:53 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 01:53 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 01:53 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	03/09/12 01:53 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 01:53 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
Chloroform	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 01:53 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/09/12 01:53 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	03/09/12 01:53 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

DHL Analytical

Date: 22-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Project No:
Lab Order: 1203088

Client Sample ID: HLSF-3839-HMW-008-0312
Lab ID: 1203088-01
Collection Date: 03/08/12 02:10 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 01:53 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/09/12 01:53 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/09/12 01:53 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Trichloroethene	0.000950	0.000600	0.00200	J	mg/L	1	03/09/12 01:53 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 01:53 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	03/09/12 01:53 PM
Surr: 1,2-Dichloroethane-d4	99.1	0	70-120	%REC	1	03/09/12 01:53 PM	
Surr: 4-Bromofluorobenzene	105	0	75-120	%REC	1	03/09/12 01:53 PM	
Surr: Dibromofluoromethane	92.0	0	85-115	%REC	1	03/09/12 01:53 PM	
Surr: Toluene-d8	102	0	85-120	%REC	1	03/09/12 01:53 PM	
ANIONS BY IC METHOD - WATER							
			E300				Analyst: JBC
Chloride	1290	30.0	100		mg/L	100	03/09/12 01:43 PM
Sulfate	7760	100	300		mg/L	100	03/09/12 01:43 PM
ALKALINITY							
			M2320 B				Analyst: JBC
Alkalinity, Bicarbonate (As CaCO ₃)	246	10.0	20.0		mg/L	1	03/09/12 12:09 PM
Alkalinity, Carbonate (As CaCO ₃)	<10.0	10.0	20.0		mg/L	1	03/09/12 12:09 PM
Alkalinity, Hydroxide (As CaCO ₃)	<10.0	10.0	20.0		mg/L	1	03/09/12 12:09 PM
Alkalinity, Total (As CaCO ₃)	246	10.0	20.0		mg/L	1	03/09/12 12:09 PM
PH							
pH	7.38	0	0		pH Units	1	03/09/12 10:59 AM
TOTAL ORGANIC CARBON							
Total Organic Carbon	0.661	0.300	1.00	J	mg/L	1	Analyst: TGK 03/14/12 10:24 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
DF Dilution Factor
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
S Spike Recovery outside control limits

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DHL Analytical

Date: 22-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Project No:
Lab Order: 1203088

Client Sample ID: HLSF-3839-HMW-TB-0312
Lab ID: 1203088-02
Collection Date: 03/08/12 02:00 PM
Matrix: TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
		SW8260C					Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/09/12 02:18 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/09/12 02:18 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/09/12 02:18 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	03/09/12 02:18 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/09/12 02:18 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	03/09/12 02:18 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 02:18 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 02:18 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 02:18 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 02:18 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 02:18 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	03/09/12 02:18 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 02:18 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

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DHL Analytical

Date: 22-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Construction Landfill
Project No:
Lab Order: 1203088

Client Sample ID: HLSF-3839-HMW-TB-0312
Lab ID: 1203088-02
Collection Date: 03/08/12 02:00 PM
Matrix: TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
		SW8260C					Analyst: KL
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
Chloroform	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	03/09/12 02:18 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/09/12 02:18 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	03/09/12 02:18 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/09/12 02:18 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/09/12 02:18 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/09/12 02:18 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Trichloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/09/12 02:18 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/09/12 02:18 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	03/09/12 02:18 PM
Surr: 1,2-Dichloroethane-d4	98.4	0	70-120	%REC	1	03/09/12 02:18 PM	
Surr: 4-Bromofluorobenzene	105	0	75-120	%REC	1	03/09/12 02:18 PM	
Surr: Dibromofluoromethane	91.5	0	85-115	%REC	1	03/09/12 02:18 PM	
Surr: Toluene-d8	101	0	85-120	%REC	1	03/09/12 02:18 PM	

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT**RunID:** GC15_120318A

The QC data in batch 50939 applies to the following samples: 1203088-01H

Sample ID: LCS-50939	Batch ID: 50939	TestNo: M8015D		Units: mg/L
SampType: LCS	Run ID: GC15_120318A	Analysis Date: 3/18/2012 9:46:54 AM		Prep Date: 3/14/2012
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
TPH-DRO C10-C28	1.16	0.100	1.250	0 92.6 50 114
Surr: Isopropylbenzene	0.0532		0.1000	53.2 47 142
Surr: Octacosane	0.0904		0.1000	90.4 51 124
Sample ID: MB-50939	Batch ID: 50939	TestNo: M8015D		Units: mg/L
SampType: MBLK	Run ID: GC15_120318A	Analysis Date: 3/18/2012 10:13:15 AM		Prep Date: 3/14/2012
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
TPH-DRO C10-C28	<0.0500	0.100		
Surr: Isopropylbenzene	0.0512		0.1000	51.2 47 142
Surr: Octacosane	0.0914		0.1000	91.4 51 124
Sample ID: 1203088-01HMS	Batch ID: 50939	TestNo: M8015D		Units: mg/L
SampType: MS	Run ID: GC15_120318A	Analysis Date: 3/18/2012 10:30:49 AM		Prep Date: 3/14/2012
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
TPH-DRO C10-C28	1.23	0.100	1.250	0 98.1 50 114
Surr: Isopropylbenzene	0.0575		0.1000	57.5 47 142
Surr: Octacosane	0.0952		0.1000	95.2 51 124
Sample ID: 1203088-01HMSD	Batch ID: 50939	TestNo: M8015D		Units: mg/L
SampType: MSD	Run ID: GC15_120318A	Analysis Date: 3/18/2012 10:39:35 AM		Prep Date: 3/14/2012
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
TPH-DRO C10-C28	1.22	0.100	1.250	0 97.6 50 114 0.493 30
Surr: Isopropylbenzene	0.0578		0.1000	57.8 47 142 0 0
Surr: Octacosane	0.0925		0.1000	92.5 51 124 0 0
Sample ID: 1203126-05EMS	Batch ID: 50939	TestNo: M8015D		Units: mg/L
SampType: MS	Run ID: GC15_120318A	Analysis Date: 3/18/2012 12:33:38 PM		Prep Date: 3/14/2012
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
TPH-DRO C10-C28	1.20	0.100	1.250	0.05520 91.8 50 114
Surr: Isopropylbenzene	0.0578		0.1000	57.8 47 142
Surr: Octacosane	0.0940		0.1000	94.0 51 124

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

Page 1 of 54

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_120318A

Sample ID: 1203126-05EMSD	Batch ID: 50939	TestNo:	M8015D	Units:	mg/L					
SampType: MSD	Run ID: GC15_120318A	Analysis Date: 3/18/2012 12:42:24 PM			Prep Date: 3/14/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	1.20	0.100	1.250	0.05520	91.5	50	114	0.288	30	
Surr: Isopropylbenzene	0.0547		0.1000		54.7	47	142	0	0	
Surr: Octacosane	0.0890		0.1000		89.0	51	124	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_120318A

Sample ID: ICV-120318	Batch ID: R59651	TestNo: M8015D			Units:	mg/L				
SampType: ICV	Run ID: GC15_120318A	Analysis Date: 3/18/2012 9:34:23 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	564	0.100	500.0	0	113	80	120			
Surr: Isopropylbenzene	23.4		25.00		93.8	80	120			
Surr: Octacosane	26.1		25.00		104	80	120			

Sample ID: CCV1-120318	Batch ID: R59651	TestNo: M8015D			Units:	mg/L				
SampType: CCV	Run ID: GC15_120318A	Analysis Date: 3/18/2012 11:23:24 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	280	0.100	250.0	0	112	80	120			
Surr: Isopropylbenzene	12.1		12.50		96.6	80	120			
Surr: Octacosane	13.0		12.50		104	80	120			

Sample ID: CCV2-120318	Batch ID: R59651	TestNo: M8015D			Units:	mg/L				
SampType: CCV	Run ID: GC15_120318A	Analysis Date: 3/18/2012 1:08:43 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	280	0.100	250.0	0	112	80	120			
Surr: Isopropylbenzene	12.1		12.50		96.6	80	120			
Surr: Octacosane	13.0		12.50		104	80	120			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_120316A

The QC data in batch 50997 applies to the following samples: 1203088-01B

Sample ID: LCS-50997	Batch ID: 50997	TestNo: M8015V	Units: mg/L							
SampType: LCS	Run ID: GC4_120316A	Analysis Date: 3/16/2012 11:11:25 AM	Prep Date: 3/16/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	5.28	0.100	5.000	0	106	67	136			
Surr: Tetrachlorethene	0.413		0.4000		103	74	138			
Sample ID: MB-50997	Batch ID: 50997	TestNo: M8015V	Units: mg/L							
SampType: MBLK	Run ID: GC4_120316A	Analysis Date: 3/16/2012 12:01:29 PM	Prep Date: 3/16/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	<0.0600	0.100								
Surr: Tetrachlorethene	0.442		0.4000		111	74	138			
Sample ID: 1203088-01BMS	Batch ID: 50997	TestNo: M8015V	Units: mg/L							
SampType: MS	Run ID: GC4_120316A	Analysis Date: 3/16/2012 3:23:51 PM	Prep Date: 3/16/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.97	0.100	5.000	0	99.3	67	136			
Surr: Tetrachlorethene	0.402		0.4000		101	74	138			
Sample ID: 1203088-01BMSD	Batch ID: 50997	TestNo: M8015V	Units: mg/L							
SampType: MSD	Run ID: GC4_120316A	Analysis Date: 3/16/2012 3:50:02 PM	Prep Date: 3/16/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.94	0.100	5.000	0	98.8	67	136	0.512	30	
Surr: Tetrachlorethene	0.409		0.4000		102	74	138	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_120316A

Sample ID: ICV-120316	Batch ID: R59634	TestNo:	M8015V	Units:	mg/L					
SampType: ICV	Run ID: GC4_120316A	Analysis Date: 3/16/2012 10:45:16 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	10.3	0.100	10.00	0	103	80	120			
Surr: Tetrachlorethene	0.419		0.4000		105	74	138			

Sample ID: CCV1-120316	Batch ID: R59634	TestNo:	M8015V	Units:	mg/L					
SampType: CCV	Run ID: GC4_120316A	Analysis Date: 3/16/2012 4:14:51 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	5.20	0.100	5.000	0	104	80	120			
Surr: Tetrachlorethene	0.408		0.4000		102	74	138			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_120319A

The QC data in batch 50979 applies to the following samples: 1203088-01D

Sample ID:	MB-50979	Batch ID:	50979	TestNo:	SW7470A	Units:	mg/L				
SampType:	MLBK	Run ID:	CETAC_HG_120319A	Analysis Date: 3/19/2012 1:56:23 PM		Prep Date:	3/15/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		<0.0000600	0.000200								
Sample ID:	LCS-50979	Batch ID:	50979	TestNo:	SW7470A	Units:	mg/L				
SampType:	LCS	Run ID:	CETAC_HG_120319A	Analysis Date: 3/19/2012 2:06:35 PM		Prep Date:	3/15/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00214	0.000200	0.00200	0	107	85	115			
Sample ID:	LCSD-50979	Batch ID:	50979	TestNo:	SW7470A	Units:	mg/L				
SampType:	LCSD	Run ID:	CETAC_HG_120319A	Analysis Date: 3/19/2012 2:08:38 PM		Prep Date:	3/15/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00204	0.000200	0.00200	0	102	85	115	4.78	15	
Sample ID:	1203088-01D SD	Batch ID:	50979	TestNo:	SW7470A	Units:	mg/L				
SampType:	SD	Run ID:	CETAC_HG_120319A	Analysis Date: 3/19/2012 3:00:56 PM		Prep Date:	3/15/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		<0.000300	0.00100	0	0				0	10	
Sample ID:	1203088-01D PDS	Batch ID:	50979	TestNo:	SW7470A	Units:	mg/L				
SampType:	PDS	Run ID:	CETAC_HG_120319A	Analysis Date: 3/19/2012 3:03:01 PM		Prep Date:	3/15/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00232	0.000200	0.00250	0	92.8	85	115			
Sample ID:	1203088-01D MS	Batch ID:	50979	TestNo:	SW7470A	Units:	mg/L				
SampType:	MS	Run ID:	CETAC_HG_120319A	Analysis Date: 3/19/2012 3:09:15 PM		Prep Date:	3/15/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00213	0.000200	0.00200	0	106	80	120			
Sample ID:	1203088-01D MSD	Batch ID:	50979	TestNo:	SW7470A	Units:	mg/L				
SampType:	MSD	Run ID:	CETAC_HG_120319A	Analysis Date: 3/19/2012 3:11:19 PM		Prep Date:	3/15/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00212	0.000200	0.00200	0	106	80	120	0.471	15	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_120319A

The QC data in batch 50994 applies to the following samples: 1203088-01E

Sample ID: 1203088-01E SD	Batch ID: 50994	TestNo: SW7470A	Units: mg/L							
SampType: SD	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 3:27:58 PM	Prep Date: 3/16/2012							
Analyte										
Mercury	Result <0.000300	RL 0.00100	SPK value 0	Ref Val 0	%REC	LowLimit 0	HighLimit 10	%RPD	RPDLimit	Qual
Mercury	<0.000300	0.00100	0	0		0	10			

Sample ID: 1203088-01E PDS	Batch ID: 50994	TestNo: SW7470A	Units: mg/L							
SampType: PDS	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 3:34:13 PM	Prep Date: 3/16/2012							
Analyte										
Mercury	Result 0.00244	RL 0.000200	SPK value 0.00250	Ref Val 0	%REC 97.6	LowLimit 85	HighLimit 115	%RPD	RPDLimit	Qual
Mercury	0.00244	0.000200	0.00250	0	97.6	85	115			

Sample ID: 1203088-01E MS	Batch ID: 50994	TestNo: SW7470A	Units: mg/L							
SampType: MS	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 3:36:17 PM	Prep Date: 3/16/2012							
Analyte										
Mercury	Result 0.00225	RL 0.000200	SPK value 0.00200	Ref Val 0	%REC 112	LowLimit 80	HighLimit 120	%RPD	RPDLimit	Qual
Mercury	0.00225	0.000200	0.00200	0	112	80	120			

Sample ID: 1203088-01E MSD	Batch ID: 50994	TestNo: SW7470A	Units: mg/L							
SampType: MSD	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 3:38:23 PM	Prep Date: 3/16/2012							
Analyte										
Mercury	Result 0.00215	RL 0.000200	SPK value 0.00200	Ref Val 0	%REC 108	LowLimit 80	HighLimit 120	4.55	4.55	15
Mercury	0.00215	0.000200	0.00200	0	108	80	120	4.55	4.55	15

The QC data in batch 50994 applies to the following samples: 1203088-01E

Sample ID: MB-50994	Batch ID: 50994	TestNo: SW7470A	Units: mg/L							
SampType: MBLK	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 1:58:25 PM	Prep Date: 3/16/2012							
Analyte										
Mercury	Result <0.0000600	RL 0.000200	SPK value 0.000200	Ref Val 0	%REC 108	LowLimit 80	HighLimit 120	4.55	4.55	15
Mercury	<0.0000600	0.000200	0.000200	0	108	80	120	4.55	4.55	15

Sample ID: Filter Blank-50994	Batch ID: 50994	TestNo: SW7470A	Units: mg/L							
SampType: MBLK	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 2:00:28 PM	Prep Date: 3/16/2012							
Analyte										
Mercury	Result <0.0000600	RL 0.000200	SPK value 0.000200	Ref Val 0	%REC 108	LowLimit 80	HighLimit 120	4.55	4.55	15
Mercury	<0.0000600	0.000200	0.000200	0	108	80	120	4.55	4.55	15

Sample ID: LCS-50994	Batch ID: 50994	TestNo: SW7470A	Units: mg/L							
SampType: LCS	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 2:10:41 PM	Prep Date: 3/16/2012							
Analyte										
Mercury	Result 0.00213	RL 0.000200	SPK value 0.00200	Ref Val 0	%REC 106	LowLimit 85	HighLimit 115			
Mercury	0.00213	0.000200	0.00200	0	106	85	115			

Qualifiers:	B	Analyte detected in the associated Method Blank
	J	Analyte detected between MDL and RL
	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit
	J	Analyte detected between SDL and RL

DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_120319A

Sample ID: LCSD-50994	Batch ID: 50994	TestNo: SW7470A	Units: mg/L							
SampType: LCSD	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 2:38:11 PM	Prep Date: 3/16/2012							
Analyte										
Mercury	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00226	0.000200	0.00200	0	113	85	115	5.92	15	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_120319A

Sample ID: ICV-120319	Batch ID: R59667	TestNo: SW7470A	Units: mg/L
SampType: ICV	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 1:48:13 PM	Prep Date:
Analyte			
Mercury			
Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
0.00386	0.000200	0.00400	0 96.5 90 110
Sample ID: CCV1-120319	Batch ID: R59667	TestNo: SW7470A	Units: mg/L
SampType: CCV	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 2:12:45 PM	Prep Date:
Analyte			
Mercury			
Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
0.00191	0.000200	0.00200	0 95.5 90 110
Sample ID: CCV2-120319	Batch ID: R59667	TestNo: SW7470A	Units: mg/L
SampType: CCV	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 2:40:16 PM	Prep Date:
Analyte			
Mercury			
Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
0.00205	0.000200	0.00200	0 103 90 110
Sample ID: CCV3-120319	Batch ID: R59667	TestNo: SW7470A	Units: mg/L
SampType: CCV	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 3:05:06 PM	Prep Date:
Analyte			
Mercury			
Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
0.00204	0.000200	0.00200	0 102 90 110
Sample ID: CCV4-120319	Batch ID: R59667	TestNo: SW7470A	Units: mg/L
SampType: CCV	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 3:30:03 PM	Prep Date:
Analyte			
Mercury			
Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
0.00199	0.000200	0.00200	0 99.5 90 110
Sample ID: CCV5-120319	Batch ID: R59667	TestNo: SW7470A	Units: mg/L
SampType: CCV	Run ID: CETAC_HG_120319A	Analysis Date: 3/19/2012 3:53:01 PM	Prep Date:
Analyte			
Mercury			
Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
0.00205	0.000200	0.00200	0 103 90 110

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_120319B

The QC data in batch 50958 applies to the following samples: 1203088-01D

Sample ID: MB-50958	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: MBLK	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 6:05:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	<0.00200	0.00600								
Barium	<0.00300	0.0100								
Cadmium	<0.000300	0.00100								
Chromium	<0.00200	0.00600								
Lead	<0.000300	0.00100								
Magnesium	<0.100	0.300								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00600								
Silver	<0.000600	0.00200								

Sample ID: LCS-50958	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: LCS	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 6:11:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.201	0.00600	0.200	0	101	80	120			
Barium	0.200	0.0100	0.200	0	99.8	80	120			
Cadmium	0.204	0.00100	0.200	0	102	80	120			
Chromium	0.215	0.00600	0.200	0	107	80	120			
Lead	0.204	0.00100	0.200	0	102	80	120			
Magnesium	5.00	0.300	5.00	0	99.9	80	120			
Potassium	4.98	0.300	5.00	0	99.6	80	120			
Selenium	0.202	0.00600	0.200	0	101	80	120			
Silver	0.212	0.00200	0.200	0	106	80	120			

Sample ID: LCSD-50958	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: LCSD	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 6:16:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.200	0.00600	0.200	0	99.8	80	120	0.898	15	
Barium	0.202	0.0100	0.200	0	101	80	120	1.39	15	
Cadmium	0.207	0.00100	0.200	0	104	80	120	1.71	15	
Chromium	0.212	0.00600	0.200	0	106	80	120	1.22	15	
Lead	0.207	0.00100	0.200	0	104	80	120	1.71	15	
Magnesium	5.03	0.300	5.00	0	101	80	120	0.619	15	
Potassium	5.05	0.300	5.00	0	101	80	120	1.34	15	
Selenium	0.203	0.00600	0.200	0	102	80	120	0.889	15	
Silver	0.215	0.00200	0.200	0	107	80	120	1.31	15	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_120319B

Sample ID: 1203088-01D SD	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: SD	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 6:34:00 PM	Prep Date: 3/15/2012							
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual										
Arsenic	0.0121	0.0300	0	0.0123				1.97	10	
Barium	<0.0150	0.0500	0	0.0107				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	0.0174	0.0300	0	0.0162				7.41	10	
Lead	<0.00150	0.00500	0	0				0	10	
Selenium	0.0618	0.0300	0	0.0734				17.1	10	R
Silver	<0.00300	0.0100	0	0				0	10	
Sample ID: 1203088-01D PDS	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: PDS	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 7:15:00 PM	Prep Date: 3/15/2012							
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual										
Arsenic	0.191	0.00600	0.200	0.0123	89.5	75	125			
Barium	0.210	0.0100	0.200	0.0107	99.6	75	125			
Cadmium	0.170	0.00100	0.200	0	84.8	75	125			
Chromium	0.186	0.00600	0.200	0.0162	84.7	75	125			
Lead	0.209	0.00100	0.200	0	105	75	125			
Selenium	0.258	0.00600	0.200	0.0734	92.3	75	125			
Silver	0.163	0.00200	0.200	0	81.4	75	125			
Sample ID: 1203088-01D MS	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: MS	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 7:20:00 PM	Prep Date: 3/15/2012							
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual										
Arsenic	0.215	0.00600	0.200	0.0123	101	80	120			
Barium	0.201	0.0100	0.200	0.0107	95.2	80	120			
Cadmium	0.163	0.00100	0.200	0	81.5	80	120			
Chromium	0.198	0.00600	0.200	0.0162	90.9	80	120			
Lead	0.203	0.00100	0.200	0	102	80	120			
Potassium	61.9	0.300	5.00	61.2	13.2	80	120			S
Selenium	0.294	0.00600	0.200	0.0734	110	80	120			
Silver	0.168	0.00200	0.200	0	84.2	80	120			
Sample ID: 1203088-01D MSD	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: MSD	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 7:26:00 PM	Prep Date: 3/15/2012							
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual										
Arsenic	0.201	0.00600	0.200	0.0123	94.6	80	120	6.44	15	
Barium	0.212	0.0100	0.200	0.0107	101	80	120	5.14	15	
Cadmium	0.170	0.00100	0.200	0	84.8	80	120	3.97	15	
Chromium	0.197	0.00600	0.200	0.0162	90.2	80	120	0.710	15	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_120319B

Sample ID: 1203088-01D MSD		Batch ID: 50958		TestNo: SW6020		Units: mg/L				
SampType: MSD	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 7:26:00 PM				Prep Date: 3/15/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.213	0.00100	0.200	0	106	80	120	4.61	15	
Potassium	60.3	0.300	5.00	61.2	-19.4	80	120	2.67	15	S
Selenium	0.263	0.00600	0.200	0.0734	94.8	80	120	11.0	15	
Silver	0.177	0.00200	0.200	0	88.6	80	120	5.09	15	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_120319B

Sample ID: ICV2-120319	Batch ID: R59662	TestNo: SW6020		Units:	mg/L					
SampType: ICV	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 5:41:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0953	0.00600	0.100	0	95.3	90	110			
Barium	0.0986	0.0100	0.100	0	98.6	90	110			
Cadmium	0.100	0.00100	0.100	0	100	90	110			
Chromium	0.104	0.00600	0.100	0	104	90	110			
Lead	0.0971	0.00100	0.100	0	97.1	90	110			
Magnesium	2.44	0.300	2.50	0	97.4	90	110			
Potassium	2.44	0.300	2.50	0	97.7	90	110			
Selenium	0.0998	0.00600	0.100	0	99.8	90	110			
Silver	0.104	0.00200	0.100	0	104	90	110			

Sample ID: CCV3-120319	Batch ID: R59662	TestNo: SW6020		Units:	mg/L					
SampType: CCV	Run ID: ICP-MS2_120319B	Analysis Date: 3/19/2012 7:38:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.204	0.00600	0.200	0	102	90	110			
Barium	0.209	0.0100	0.200	0	104	90	110			
Cadmium	0.207	0.00100	0.200	0	104	90	110			
Chromium	0.215	0.00600	0.200	0	107	90	110			
Lead	0.211	0.00100	0.200	0	105	90	110			
Magnesium	5.50	0.300	5.00	0	110	90	110			
Potassium	5.50	0.300	5.00	0	110	90	110			
Selenium	0.211	0.00600	0.200	0	106	90	110			
Silver	0.219	0.00200	0.200	0	109	90	110			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120319B

The QC data in batch 50959 applies to the following samples: 1203088-01E

Sample ID: MB-50959	Batch ID: 50959	TestNo: SW6020	Units: mg/L							
SampType: MBLK	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 2:24:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	<0.00200	0.00600								
Barium	<0.00300	0.0100								
Cadmium	<0.000300	0.00100								
Chromium	<0.00200	0.00600								
Lead	<0.000300	0.00100								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00600								
Silver	<0.000600	0.00200								

Sample ID: Filter Blank-50959	Batch ID: 50959	TestNo: SW6020	Units: mg/L							
SampType: MBLK	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 2:30:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	<0.00200	0.00600								
Barium	<0.00300	0.0100								
Cadmium	<0.000300	0.00100								
Chromium	<0.00200	0.00600								
Lead	<0.000300	0.00100								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00600								
Silver	<0.000600	0.00200								

Sample ID: LCS-50959	Batch ID: 50959	TestNo: SW6020	Units: mg/L							
SampType: LCS	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 2:36:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.199	0.00600	0.200	0	99.6	80	120			
Barium	0.199	0.0100	0.200	0	99.6	80	120			
Cadmium	0.199	0.00100	0.200	0	99.6	80	120			
Chromium	0.203	0.00600	0.200	0	101	80	120			
Lead	0.204	0.00100	0.200	0	102	80	120			
Potassium	4.90	0.300	5.00	0	98.0	80	120			
Selenium	0.208	0.00600	0.200	0	104	80	120			
Silver	0.196	0.00200	0.200	0	98.0	80	120			

Sample ID: LCSD-50959	Batch ID: 50959	TestNo: SW6020	Units: mg/L							
SampType: LCSD	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 2:41:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.198	0.00600	0.200	0	98.8	80	120	0.756	15	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120319B

Sample ID: LCSD-50959	Batch ID: 50959	TestNo: SW6020	Units: mg/L
SampType: LCSD	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 2:41:00 PM	Prep Date: 3/15/2012
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual			
Barium 0.201 0.0100 0.200 0 101 80 120 0.900 15			
Cadmium 0.199 0.00100 0.200 0 99.7 80 120 0.151 15			
Chromium 0.204 0.00600 0.200 0 102 80 120 0.737 15			
Lead 0.208 0.00100 0.200 0 104 80 120 2.03 15			
Potassium 5.00 0.300 5.00 0 100 80 120 2.10 15			
Selenium 0.208 0.00600 0.200 0 104 80 120 0.048 15			
Silver 0.198 0.00200 0.200 0 99.2 80 120 1.27 15			
Sample ID: 1203088-01E SD Batch ID: 50959 TestNo: SW6020 Units: mg/L			
SampType: SD Run ID: ICP-MS3_120319B Analysis Date: 3/19/2012 2:58:00 PM Prep Date: 3/15/2012			
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual			
Arsenic 0.0119 0.0300 0 0.0122 2.28 10			
Barium <0.0150 0.0500 0 0.00924 0 10			
Cadmium <0.00150 0.00500 0 0 0 10			
Chromium 0.0158 0.0300 0 0.0148 6.51 10			
Lead <0.00150 0.00500 0 0 0 10			
Selenium 0.0578 0.0300 0 0.0721 22.0 10			
Silver <0.00300 0.0100 0 0 0 10			
Sample ID: 1203088-01E PDS Batch ID: 50959 TestNo: SW6020 Units: mg/L			
SampType: PDS Run ID: ICP-MS3_120319B Analysis Date: 3/19/2012 3:37:00 PM Prep Date: 3/15/2012			
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual			
Arsenic 0.222 0.00600 0.200 0.0122 105 75 125			
Barium 0.212 0.0100 0.200 0.00924 102 75 125			
Cadmium 0.174 0.00100 0.200 0 86.9 75 125			
Chromium 0.199 0.00600 0.200 0.0148 92.3 75 125			
Lead 0.208 0.00100 0.200 0 104 75 125			
Selenium 0.306 0.00600 0.200 0.0721 117 75 125			
Silver 0.171 0.00200 0.200 0 85.3 75 125			
Sample ID: 1203088-01E MS Batch ID: 50959 TestNo: SW6020 Units: mg/L			
SampType: MS Run ID: ICP-MS3_120319B Analysis Date: 3/19/2012 3:43:00 PM Prep Date: 3/15/2012			
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual			
Arsenic 0.229 0.00600 0.200 0.0122 108 80 120			
Barium 0.214 0.0100 0.200 0.00924 102 80 120			
Cadmium 0.178 0.00100 0.200 0 88.8 80 120			
Chromium 0.202 0.00600 0.200 0.0148 93.7 80 120			
Lead 0.209 0.00100 0.200 0 104 80 120			

Qualifiers: B Analyte detected in the associated Method Blank
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 J Analyte detected between SDL and RL

DF Dilution Factor
 MDL Method Detection Limit
 R RPD outside accepted control limits
 S Spike Recovery outside control limits
 N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120319B

Sample ID: 1203088-01E MS	Batch ID: 50959	TestNo:	SW6020	Units:	mg/L					
SampType: MS	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 3:43:00 PM		Prep Date:	3/15/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	61.6	0.300	5.00	56.2	109	80	120			
Selenium	0.296	0.00600	0.200	0.0721	112	80	120			
Silver	0.177	0.00200	0.200	0	88.4	80	120			

Sample ID: 1203088-01E MSD	Batch ID: 50959	TestNo:	SW6020	Units:	mg/L					
SampType: MSD	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 3:49:00 PM		Prep Date:	3/15/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.231	0.00600	0.200	0.0122	110	80	120	1.09	15	
Barium	0.214	0.0100	0.200	0.00924	102	80	120	0	15	
Cadmium	0.177	0.00100	0.200	0	88.4	80	120	0.452	15	
Chromium	0.195	0.00600	0.200	0.0148	90.0	80	120	3.68	15	
Lead	0.210	0.00100	0.200	0	105	80	120	0.525	15	
Potassium	58.7	0.300	5.00	56.2	50.4	80	120	4.84	15	S
Selenium	0.304	0.00600	0.200	0.0721	116	80	120	2.64	15	
Silver	0.177	0.00200	0.200	0	88.4	80	120	0.113	15	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120319B

Sample ID: ICV1-120319	Batch ID: R59657	TestNo: SW6020		Units: mg/L
SampType: ICV	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 11:50:00 AM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	0.101	0.00600	0.100	0 101 90 110
Barium	0.103	0.0100	0.100	0 103 90 110
Cadmium	0.100	0.00100	0.100	0 100 90 110
Chromium	0.108	0.00600	0.100	0 108 90 110
Lead	0.103	0.00100	0.100	0 103 90 110
Potassium	2.57	0.300	2.50	0 103 90 110
Selenium	0.103	0.00600	0.100	0 103 90 110
Silver	0.0978	0.00200	0.100	0 97.8 90 110

Sample ID: CCV1-120319	Batch ID: R59657	TestNo: SW6020		Units: mg/L
SampType: CCV	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 1:55:00 PM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	0.196	0.00600	0.200	0 98.0 90 110
Barium	0.191	0.0100	0.200	0 95.4 90 110
Cadmium	0.191	0.00100	0.200	0 95.5 90 110
Chromium	0.204	0.00600	0.200	0 102 90 110
Lead	0.196	0.00100	0.200	0 98.2 90 110
Potassium	5.14	0.300	5.00	0 103 90 110
Selenium	0.202	0.00600	0.200	0 101 90 110
Silver	0.191	0.00200	0.200	0 95.3 90 110

Sample ID: CCV2-120319	Batch ID: R59657	TestNo: SW6020		Units: mg/L
SampType: CCV	Run ID: ICP-MS3_120319B	Analysis Date: 3/19/2012 4:06:00 PM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	0.204	0.00600	0.200	0 102 90 110
Barium	0.197	0.0100	0.200	0 98.6 90 110
Cadmium	0.194	0.00100	0.200	0 96.8 90 110
Chromium	0.203	0.00600	0.200	0 102 90 110
Lead	0.200	0.00100	0.200	0 100 90 110
Potassium	5.32	0.300	5.00	0 106 90 110
Selenium	0.192	0.00600	0.200	0 96.1 90 110
Silver	0.196	0.00200	0.200	0 98.0 90 110

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120320B

The QC data in batch 50958 applies to the following samples: 1203088-01D

Sample ID: MB-50958	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: MBLK	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 1:57:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	<0.100	0.300								
Sodium	<0.100	0.300								
Sample ID: LCS-50958	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: LCS	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 2:14:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.00	0.300	5.00	0	100	80	120			
Sodium	5.00	0.300	5.00	0	100	80	120			
Sample ID: LCSD-50958	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: LCSD	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 2:19:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.12	0.300	5.00	0	102	80	120	2.27	15	
Sodium	4.98	0.300	5.00	0	99.6	80	120	0.481	15	
Sample ID: 1203088-01D SD	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: SD	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 2:47:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	440	300	0	459				4.12	10	
Magnesium	699	300	0	692				1.08	10	
Potassium	<100	300	0	63.7				0	10	
Sodium	2680	300	0	2570				4.19	10	
Sample ID: 1203088-01D PDS	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: PDS	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 3:21:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	1500	60.0	1000	459	104	75	125			
Magnesium	1680	60.0	1000	692	99.0	75	125			
Potassium	1060	60.0	1000	63.7	100	75	125			
Sodium	3610	60.0	1000	2570	105	75	125			
Sample ID: 1203088-01D MS	Batch ID: 50958	TestNo: SW6020	Units: mg/L							
SampType: MS	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 3:32:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	450	60.0	5.00	459	-184	80	120			S

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120320B

Sample ID: 1203088-01D MS		Batch ID: 50958		TestNo: SW6020		Units: mg/L				
SampType: MS	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 3:32:00 PM				Prep Date: 3/15/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	679	60.0	5.00	692	-260	80	120			S
Potassium	67.7	60.0	5.00	63.7	79.2	80	120			S
Sodium	2520	60.0	5.00	2570	-1000	80	120			S

Sample ID: 1203088-01D MSD		Batch ID: 50958		TestNo: SW6020		Units: mg/L				
SampType: MSD	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 3:38:00 PM				Prep Date: 3/15/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	442	60.0	5.00	459	-336	80	120	1.70	15	S
Magnesium	680	60.0	5.00	692	-236	80	120	0.177	15	S
Potassium	66.7	60.0	5.00	63.7	59.6	80	120	1.46	15	S
Sodium	2520	60.0	5.00	2570	-1040	80	120	0.079	15	S

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120320B

The QC data in batch 50959 applies to the following samples: 1203088-01E

Sample ID:	MB-50959	Batch ID:	50959	TestNo:	SW6020		Units:	mg/L			
SampType:	MLBK	Run ID:	ICP-MS3_120320B <th>Analysis Date:</th> <td data-cs="2" data-kind="parent">3/20/2012 2:02:00 PM</td> <td data-kind="ghost"></td> <th>Prep Date:</th> <td>3/15/2012</td>	Analysis Date:	3/20/2012 2:02:00 PM		Prep Date:	3/15/2012			
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		<0.100	0.300								
Magnesium		<0.100	0.300								
Sodium		<0.100	0.300								
Sample ID:	Filter Blank-50959	Batch ID:	50959	TestNo:	SW6020		Units:	mg/L			
SampType:	MLBK	Run ID:	ICP-MS3_120320B <th>Analysis Date:</th> <td data-cs="2" data-kind="parent">3/20/2012 2:08:00 PM</td> <td data-kind="ghost"></td> <th>Prep Date:</th> <td>3/15/2012</td>	Analysis Date:	3/20/2012 2:08:00 PM		Prep Date:	3/15/2012			
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		<0.100	0.300								
Magnesium		<0.100	0.300								
Sodium		<0.100	0.300								
Sample ID:	LCS-50959	Batch ID:	50959	TestNo:	SW6020		Units:	mg/L			
SampType:	LCS	Run ID:	ICP-MS3_120320B <th>Analysis Date:</th> <td data-cs="2" data-kind="parent">3/20/2012 2:25:00 PM</td> <td data-kind="ghost"></td> <th>Prep Date:</th> <td>3/15/2012</td>	Analysis Date:	3/20/2012 2:25:00 PM		Prep Date:	3/15/2012			
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		5.10	0.300	5.00	0	102	80	120			
Magnesium		4.98	0.300	5.00	0	99.7	80	120			
Sodium		4.98	0.300	5.00	0	99.7	80	120			
Sample ID:	LCSD-50959	Batch ID:	50959	TestNo:	SW6020		Units:	mg/L			
SampType:	LCSD	Run ID:	ICP-MS3_120320B <th>Analysis Date:</th> <td data-cs="2" data-kind="parent">3/20/2012 2:30:00 PM</td> <td data-kind="ghost"></td> <th>Prep Date:</th> <td>3/15/2012</td>	Analysis Date:	3/20/2012 2:30:00 PM		Prep Date:	3/15/2012			
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		5.10	0.300	5.00	0	102	80	120	0.098	15	
Magnesium		4.98	0.300	5.00	0	99.6	80	120	0.040	15	
Sodium		4.93	0.300	5.00	0	98.6	80	120	1.09	15	
Sample ID:	1203088-01E SD	Batch ID:	50959	TestNo:	SW6020		Units:	mg/L			
SampType:	SD	Run ID:	ICP-MS3_120320B <th>Analysis Date:</th> <td data-cs="2" data-kind="parent">3/20/2012 2:59:00 PM</td> <td data-kind="ghost"></td> <th>Prep Date:</th> <td>3/15/2012</td>	Analysis Date:	3/20/2012 2:59:00 PM		Prep Date:	3/15/2012			
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		447	300	0	450				0.602	10	
Magnesium		681	300	0	694				1.91	10	
Potassium		<100	300	0	64.5				0	10	
Sodium		2670	300	0	2570				3.77	10	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120320B

Sample ID: 1203088-01E PDS		Batch ID: 50959		TestNo: SW6020		Units: mg/L				
SampType: PDS	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 3:27:00 PM				Prep Date: 3/15/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	1500	60.0	1000	450	105	75	125			
Magnesium	1670	60.0	1000	694	97.3	75	125			
Potassium	1060	60.0	1000	64.5	99.7	75	125			
Sodium	3540	60.0	1000	2570	96.2	75	125			
Sample ID: 1203088-01E MS		Batch ID: 50959		TestNo: SW6020		Units: mg/L				
SampType: MS	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 3:44:00 PM				Prep Date: 3/15/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	453	60.0	5.00	450	72.0	80	120			S
Magnesium	708	60.0	5.00	694	284	80	120			S
Potassium	70.0	60.0	5.00	64.5	110	80	120			
Sodium	2610	60.0	5.00	2570	640	80	120			S
Sample ID: 1203088-01E MSD		Batch ID: 50959		TestNo: SW6020		Units: mg/L				
SampType: MSD	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 3:49:00 PM				Prep Date: 3/15/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	442	60.0	5.00	450	-156	80	120	2.55	15	S
Magnesium	672	60.0	5.00	694	-440	80	120	5.24	15	S
Potassium	64.1	60.0	5.00	64.5	-7.20	80	120	8.77	15	S
Sodium	2490	60.0	5.00	2570	-1720	80	120	4.63	15	S

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120320B

Sample ID: ICV1-120320	Batch ID: R59686	TestNo: SW6020		Units: mg/L						
SampType: ICV	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 11:46:00 AM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2.61	0.300	2.50	0	104	90	110			
Magnesium	2.65	0.300	2.50	0	106	90	110			
Potassium	2.55	0.300	2.50	0	102	90	110			
Sodium	2.65	0.300	2.50	0	106	90	110			
Sample ID: CCV1-120320	Batch ID: R59686	TestNo: SW6020		Units: mg/L						
SampType: CCV	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 1:25:00 PM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.38	0.300	5.00	0	108	90	110			
Magnesium	5.12	0.300	5.00	0	102	90	110			
Potassium	5.11	0.300	5.00	0	102	90	110			
Sodium	5.19	0.300	5.00	0	104	90	110			
Sample ID: CCV2-120320	Batch ID: R59686	TestNo: SW6020		Units: mg/L						
SampType: CCV	Run ID: ICP-MS3_120320B	Analysis Date: 3/20/2012 3:55:00 PM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.14	0.300	5.00	0	103	90	110			
Magnesium	5.14	0.300	5.00	0	103	90	110			
Potassium	5.07	0.300	5.00	0	101	90	110			
Sodium	5.26	0.300	5.00	0	105	90	110			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

The QC data in batch 50902 applies to the following samples: 1203088-01G

Sample ID: LCS-50902	Batch ID: 50902	TestNo:	SW8270C		Units:	mg/L				
SampType: LCS	Run ID: GCMS9_120312C		Analysis Date: 3/12/2012 6:39:00 PM		Prep Date:	3/12/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4,5-Tetrachlorobenzene	0.0139	0.000800	0.0160	0	87.1	35	120			
1,2-Diphenylhydrazine	0.00690	0.000800	0.00800	0	86.3	55	115			
1-Methylnaphthalene	0.00649	0.000800	0.00800	0	81.1	45	125			N
2,4,5-Trichlorophenol	0.00791	0.000800	0.00800	0	98.9	50	110			
2,4,6-Trichlorophenol	0.00814	0.000800	0.00800	0	102	50	115			
2,4-Dichlorophenol	0.00839	0.000800	0.00800	0	105	50	105			
2,4-Dimethylphenol	0.00839	0.000800	0.00800	0	105	30	110			
2,4-Dinitrophenol	0.00716	0.00400	0.00800	0	89.4	15	140			
2,4-Dinitrotoluene	0.00814	0.000800	0.00800	0	102	50	120			
2,6-Dichlorophenol	0.00797	0.000800	0.00800	0	99.7	35	120			
2,6-Dinitrotoluene	0.00781	0.000800	0.00800	0	97.6	50	115			
2-Chloronaphthalene	0.00871	0.000800	0.00800	0	109	50	105			S
2-Chlorophenol	0.00687	0.000800	0.00800	0	85.9	35	105			
2-Methylnaphthalene	0.00726	0.000800	0.00800	0	90.7	45	105			
2-Methylphenol	0.00722	0.000800	0.00800	0	90.2	40	110			
2-Nitroaniline	0.00760	0.000800	0.00800	0	95.0	50	115			
2-Nitrophenol	0.00788	0.000800	0.00800	0	98.6	40	115			
3,3'-Dichlorobenzidine	0.00937	0.00400	0.00800	0	117	20	110			S
3-Nitroaniline	0.00761	0.000800	0.00800	0	95.2	20	125			
4,6-Dinitro-2-methylphenol	0.00801	0.00200	0.00800	0	100	40	130			
4-Bromophenyl phenyl ether	0.00825	0.000800	0.00800	0	103	50	115			
4-Chloro-3-methylphenol	0.00708	0.000800	0.00800	0	88.5	45	110			
4-Chloroaniline	0.00638	0.00200	0.00800	0	79.8	15	110			
4-Chlorophenyl phenyl ether	0.00751	0.000800	0.00800	0	93.9	50	110			
4-Methylphenol	0.00620	0.000800	0.00800	0	77.4	30	110			
4-Nitroaniline	0.00810	0.000800	0.00800	0	101	35	120			
4-Nitrophenol	0.00685	0.00400	0.00800	0	85.6	20	120			
Acenaphthene	0.00738	0.000800	0.00800	0	92.3	45	110			
Acenaphthylene	0.00868	0.000800	0.00800	0	108	50	105			S
Acetophenone	0.0109	0.000800	0.0160	0	68.2	45	125			
Aniline	0.00318	0.000800	0.00800	0	39.8	10	140			
Anthracene	0.00818	0.000800	0.00800	0	102	55	110			
Benzidine	0.00672	0.00600	0.00800	0	84.0	20	125			
Benzo[a]anthracene	0.00784	0.000800	0.00800	0	98.0	55	110			
Benzo[a]pyrene	0.00912	0.000800	0.00800	0	114	55	110			S
Benzo[b]fluoranthene	0.00920	0.000800	0.00800	0	115	45	120			
Benzo[g,h,i]perylene	0.00920	0.000800	0.00800	0	115	40	125			
Benzo[k]fluoranthene	0.00739	0.000800	0.00800	0	92.4	45	125			
Benzoic acid	0.00500	0.00600	0.00800	0	62.5	5	120			
Benzyl alcohol	0.00463	0.00200	0.00800	0	57.9	30	110			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: LCS-50902	Batch ID: 50902	TestNo: SW8270C		Units:	mg/L					
SampType: LCS	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 6:39:00 PM			Prep Date: 3/12/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biphenyl	0.00691	0.000800	0.00800	0	86.4	45	125			
Bis(2-chloroethoxy)methane	0.00723	0.000800	0.00800	0	90.4	45	105			
Bis(2-chloroethyl)ether	0.00547	0.000800	0.00800	0	68.4	35	110			
Bis(2-chloroisopropyl)ether	0.00470	0.000800	0.00800	0	58.7	25	130			
Bis(2-ethylhexyl)phthalate	0.00823	0.00300	0.00800	0	103	40	125			
Butyl benzyl phthalate	0.00809	0.00600	0.00800	0	101	45	115			
Carbazole	0.00801	0.000800	0.00800	0	100	50	115			
Chrysene	0.00724	0.000800	0.00800	0	90.5	55	110			
Di-n-butyl phthalate	0.00874	0.00600	0.00800	0	109	55	115			
Di-n-octyl phthalate	0.00886	0.00600	0.00800	0	111	35	135			
Dibenz[a,h]anthracene	0.00942	0.000800	0.00800	0	118	40	125			
Dibenzofuran	0.00724	0.000800	0.00800	0	90.4	55	105			
Diethyl phthalate	0.00796	0.00600	0.00800	0	99.5	40	120			
Dimethyl phthalate	0.00772	0.00600	0.00800	0	96.6	25	125			
Fluoranthene	0.00848	0.000800	0.00800	0	106	55	115			
Fluorene	0.00740	0.000800	0.00800	0	92.5	50	110			
Hexachlorobenzene	0.00842	0.000800	0.00800	0	105	50	110			
Hexachlorobutadiene	0.00723	0.000800	0.00800	0	90.4	25	105			
Hexachlorocyclopentadiene	0.0103	0.00200	0.00800	0	129	25	125			S
Hexachloroethane	0.00594	0.000800	0.00800	0	74.2	30	100			
Indeno[1,2,3-cd]pyrene	0.00916	0.000800	0.00800	0	115	45	125			
Isophorone	0.00702	0.000800	0.00800	0	87.7	50	110			
N-Nitrosodi-n-propylamine	0.00587	0.000800	0.00800	0	73.4	35	130			
N-Nitrosodimethylamine	0.00379	0.000800	0.00800	0	47.4	25	110			
N-Nitrosodiphenylamine	0.0162	0.000800	0.0160	0	101	50	110			
Naphthalene	0.00717	0.000800	0.00800	0	89.7	40	100			
Nitrobenzene	0.00662	0.000800	0.00800	0	82.8	45	110			
Pentachlorobenzene	0.0141	0.000800	0.0160	0	87.8	35	120			
Pentachlorophenol	0.00814	0.000800	0.00800	0	102	40	115			
Phenanthrene	0.00744	0.000800	0.00800	0	93.0	50	115			
Phenol	0.00351	0.000800	0.00800	0	43.9	20	115			
Pyrene	0.00797	0.000800	0.00800	0	99.6	50	130			
Pyridine	0.00370	0.00200	0.00800	0	46.3	20	110			
Surr: 2,4,6-Tribromophenol	19.8		16.00		124	42	124			
Surr: 2-Fluorobiphenyl	16.7		16.00		104	50	110			
Surr: 2-Fluorophenol	12.3		16.00		77.0	20	110			
Surr: 4-Terphenyl-d14	17.3		16.00		108	51	135			
Surr: Nitrobenzene-d5	15.1		16.00		94.2	41	110			
Surr: Phenol-d6	7.40		16.00		46.2	20	115			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: 1203088-01GMS	Batch ID: 50902	TestNo: SW8270C		Units:	mg/L					
SampType: MS	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 7:48:00 PM			Prep Date: 3/12/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4,5-Tetrachlorobenzene	0.0141	0.000800	0.0160	0	88.1	35	120			
1,2-Diphenylhydrazine	0.00666	0.000800	0.00800	0	83.2	55	115			
1-Methylnaphthalene	0.00639	0.000800	0.00800	0	79.9	45	125			N
2,4,5-Trichlorophenol	0.00766	0.000800	0.00800	0	95.7	50	110			
2,4,6-Trichlorophenol	0.00784	0.000800	0.00800	0	98.0	50	115			
2,4-Dichlorophenol	0.00834	0.000800	0.00800	0	104	50	105			
2,4-Dimethylphenol	0.00806	0.000800	0.00800	0	101	30	110			
2,4-Dinitrophenol	0.00702	0.00400	0.00800	0	87.7	15	140			
2,4-Dinitrotoluene	0.00777	0.000800	0.00800	0	97.2	50	120			
2,6-Dichlorophenol	0.00780	0.000800	0.00800	0	97.5	35	120			
2,6-Dinitrotoluene	0.00756	0.000800	0.00800	0	94.5	50	115			
2-Chloronaphthalene	0.00847	0.000800	0.00800	0	106	50	105			S
2-Chlorophenol	0.00657	0.000800	0.00800	0	82.1	35	105			
2-Methylnaphthalene	0.00710	0.000800	0.00800	0	88.8	45	105			
2-Methylphenol	0.00670	0.000800	0.00800	0	83.7	40	110			
2-Nitroaniline	0.00727	0.000800	0.00800	0	90.8	50	115			
2-Nitrophenol	0.00778	0.000800	0.00800	0	97.3	40	115			
3,3'-Dichlorobenzidine	0.00828	0.00400	0.00800	0	104	20	110			
3-Nitroaniline	0.00711	0.000800	0.00800	0	88.9	20	125			
4,6-Dinitro-2-methylphenol	0.00786	0.00200	0.00800	0	98.3	40	130			
4-Bromophenyl phenyl ether	0.00798	0.000800	0.00800	0	99.8	50	115			
4-Chloro-3-methylphenol	0.00684	0.000800	0.00800	0	85.4	45	110			
4-Chloroaniline	0.00602	0.00200	0.00800	0	75.2	15	110			
4-Chlorophenyl phenyl ether	0.00720	0.000800	0.00800	0	90.0	50	110			
4-Methylphenol	0.00571	0.000800	0.00800	0	71.4	30	110			
4-Nitroaniline	0.00766	0.000800	0.00800	0	95.7	35	120			
4-Nitrophenol	0.00599	0.00400	0.00800	0	74.9	20	120			
Acenaphthene	0.00713	0.000800	0.00800	0	89.1	45	110			
Acenaphthylene	0.00834	0.000800	0.00800	0	104	50	105			
Acetophenone	0.0105	0.000800	0.0160	0	65.9	45	125			
Aniline	0.00291	0.000800	0.00800	0	36.4	10	140			
Anthracene	0.00791	0.000800	0.00800	0	98.9	55	110			
Benzidine	0.0101	0.00600	0.00800	0	126	20	125			S
Benzo[a]anthracene	0.00754	0.000800	0.00800	0	94.3	55	110			
Benzo[a]pyrene	0.00884	0.000800	0.00800	0	110	55	110			
Benzo[b]fluoranthene	0.00922	0.000800	0.00800	0	115	45	120			
Benzo[g,h,i]perylene	0.00888	0.000800	0.00800	0	111	40	125			
Benzo[k]fluoranthene	0.00670	0.000800	0.00800	0	83.8	45	125			
Benzoic acid	0.0153	0.00600	0.00800	0.0173	-25.3	5	120			S
Benzyl alcohol	0.00476	0.00200	0.00800	0	59.5	30	110			
Biphenyl	0.00672	0.000800	0.00800	0	84.0	45	125			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: 1203088-01GMS	Batch ID: 50902	TestNo:	SW8270C	Units:	mg/L					
SampType: MS	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 7:48:00 PM			Prep Date: 3/12/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bis(2-chloroethoxy)methane	0.00707	0.000800	0.00800	0	88.4	45	105			
Bis(2-chloroethyl)ether	0.00523	0.000800	0.00800	0	65.4	35	110			
Bis(2-chloroisopropyl)ether	0.00445	0.000800	0.00800	0	55.6	25	130			
Bis(2-ethylhexyl)phthalate	0.00813	0.00300	0.00800	0	102	40	125			
Butyl benzyl phthalate	0.00789	0.00600	0.00800	0	98.7	45	115			
Carbazole	0.00768	0.000800	0.00800	0	96.0	50	115			
Chrysene	0.00704	0.000800	0.00800	0	88.0	55	110			
Di-n-butyl phthalate	0.00830	0.00600	0.00800	0	104	55	115			
Di-n-octyl phthalate	0.00863	0.00600	0.00800	0	108	35	135			
Dibenz[a,h]anthracene	0.00908	0.000800	0.00800	0	113	40	125			
Dibenzofuran	0.00703	0.000800	0.00800	0	87.8	55	105			
Diethyl phthalate	0.00754	0.00600	0.00800	0	94.2	40	120			
Dimethyl phthalate	0.00738	0.00600	0.00800	0	92.2	25	125			
Fluoranthene	0.00818	0.000800	0.00800	0	102	55	115			
Fluorene	0.00702	0.000800	0.00800	0	87.7	50	110			
Hexachlorobenzene	0.00819	0.000800	0.00800	0	102	50	110			
Hexachlorobutadiene	0.00733	0.000800	0.00800	0	91.6	25	105			
Hexachlorocyclopentadiene	0.0106	0.00200	0.00800	0	132	25	125			S
Hexachloroethane	0.00601	0.000800	0.00800	0	75.2	30	100			
Indeno[1,2,3-cd]pyrene	0.00884	0.000800	0.00800	0	110	45	125			
Isophorone	0.00684	0.000800	0.00800	0	85.5	50	110			
N-Nitrosodi-n-propylamine	0.00561	0.000800	0.00800	0	70.1	35	130			
N-Nitrosodimethylamine	0.00391	0.000800	0.00800	0	48.9	25	110			
N-Nitrosodiphenylamine	0.0157	0.000800	0.0160	0	98.1	50	110			
Naphthalene	0.00699	0.000800	0.00800	0	87.4	40	100			
Nitrobenzene	0.00637	0.000800	0.00800	0	79.6	45	110			
Pentachlorobenzene	0.0143	0.000800	0.0160	0	89.2	35	120			
Pentachlorophenol	0.00786	0.000800	0.00800	0	98.3	40	115			
Phenanthrene	0.00722	0.000800	0.00800	0	90.2	50	115			
Phenol	0.00342	0.000800	0.00800	0	42.7	20	115			
Pyrene	0.00759	0.000800	0.00800	0	94.9	50	130			
Pyridine	0.00369	0.00200	0.00800	0	46.1	20	110			
Surr: 2,4,6-Tribromophenol	19.4		16.00		121	42	124			
Surr: 2-Fluorobiphenyl	16.2		16.00		101	50	110			
Surr: 2-Fluorophenol	11.7		16.00		73.0	20	110			
Surr: 4-Terphenyl-d14	16.6		16.00		104	51	135			
Surr: Nitrobenzene-d5	14.7		16.00		91.8	41	110			
Surr: Phenol-d6	7.20		16.00		45.0	20	115			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: 1203088-01GMSD	Batch ID: 50902	TestNo: SW8270C		Units: mg/L						
SampType: MSD	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 8:11:00 PM			Prep Date: 3/12/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4,5-Tetrachlorobenzene	0.0134	0.000800	0.0160	0	84.0	35	120	4.77	30	
1,2-Diphenylhydrazine	0.00646	0.000800	0.00800	0	80.8	55	115	2.93	30	
1-Methylnaphthalene	0.00584	0.000800	0.00800	0	73.0	45	125	8.89	30	N
2,4,5-Trichlorophenol	0.00736	0.000800	0.00800	0	92.0	50	110	3.94	30	
2,4,6-Trichlorophenol	0.00745	0.000800	0.00800	0	93.2	50	115	5.02	30	
2,4-Dichlorophenol	0.00780	0.000800	0.00800	0	97.5	50	105	6.74	30	
2,4-Dimethylphenol	0.00762	0.000800	0.00800	0	95.2	30	110	5.71	30	
2,4-Dinitrophenol	0.00672	0.00400	0.00800	0	84.0	15	140	4.31	30	
2,4-Dinitrotoluene	0.00758	0.000800	0.00800	0	94.8	50	120	2.50	30	
2,6-Dichlorophenol	0.00734	0.000800	0.00800	0	91.8	35	120	5.97	30	
2,6-Dinitrotoluene	0.00734	0.000800	0.00800	0	91.7	50	115	3.01	30	
2-Chloronaphthalene	0.00826	0.000800	0.00800	0	103	50	105	2.53	30	
2-Chlorophenol	0.00628	0.000800	0.00800	0	78.4	35	105	4.55	30	
2-Methylnaphthalene	0.00672	0.000800	0.00800	0	84.0	45	105	5.56	30	
2-Methylphenol	0.00655	0.000800	0.00800	0	81.8	40	110	2.23	30	
2-Nitroaniline	0.00703	0.000800	0.00800	0	87.9	50	115	3.30	30	
2-Nitrophenol	0.00743	0.000800	0.00800	0	92.8	40	115	4.68	30	
3,3'-Dichlorobenzidine	0.00841	0.00400	0.00800	0	105	20	110	1.49	30	
3-Nitroaniline	0.00701	0.000800	0.00800	0	87.6	20	125	1.47	30	
4,6-Dinitro-2-methylphenol	0.00752	0.00200	0.00800	0	94.0	40	130	4.47	30	
4-Bromophenyl phenyl ether	0.00778	0.000800	0.00800	0	97.3	50	115	2.49	30	
4-Chloro-3-methylphenol	0.00645	0.000800	0.00800	0	80.6	45	110	5.78	30	
4-Chloroaniline	0.00567	0.00200	0.00800	0	70.9	15	110	5.95	30	
4-Chlorophenyl phenyl ether	0.00702	0.000800	0.00800	0	87.8	50	110	2.47	30	
4-Methylphenol	0.00537	0.000800	0.00800	0	67.2	30	110	6.06	30	
4-Nitroaniline	0.00742	0.000800	0.00800	0	92.8	35	120	3.08	30	
4-Nitrophenol	0.00579	0.00400	0.00800	0	72.4	20	120	3.46	30	
Acenaphthene	0.00692	0.000800	0.00800	0	86.6	45	110	2.90	30	
Acenaphthylene	0.00802	0.000800	0.00800	0	100	50	105	3.96	30	
Acetophenone	0.00993	0.000800	0.0160	0	62.0	45	125	6.02	30	
Aniline	0.00279	0.000800	0.00800	0	34.9	10	140	4.07	30	
Anthracene	0.00763	0.000800	0.00800	0	95.4	55	110	3.60	30	
Benzidine	0.00968	0.00600	0.00800	0	121	20	125	4.05	30	
Benzo[a]anthracene	0.00724	0.000800	0.00800	0	90.5	55	110	4.11	30	
Benzo[a]pyrene	0.00854	0.000800	0.00800	0	107	55	110	3.41	30	
Benzo[b]fluoranthene	0.00906	0.000800	0.00800	0	113	45	120	1.84	30	
Benzo[g,h,i]perylene	0.00856	0.000800	0.00800	0	107	40	125	3.67	30	
Benzo[k]fluoranthene	0.00634	0.000800	0.00800	0	79.2	45	125	5.52	30	
Benzoic acid	0.0140	0.00600	0.00800	0.0173	-41.8	5	120	9.00	30	S
Benzyl alcohol	0.00428	0.00200	0.00800	0	53.5	30	110	10.5	30	
Biphenyl	0.00624	0.000800	0.00800	0	78.0	45	125	7.53	30	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: 1203088-01GMSD	Batch ID: 50902	TestNo: SW8270C		Units: mg/L						
SampType: MSD	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 8:11:00 PM			Prep Date: 3/12/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bis(2-chloroethoxy)methane	0.00667	0.000800	0.00800	0	83.4	45	105	5.88	30	
Bis(2-chloroethyl)ether	0.00494	0.000800	0.00800	0	61.8	35	110	5.74	30	
Bis(2-chloroisopropyl)ether	0.00431	0.000800	0.00800	0	53.8	25	130	3.20	30	
Bis(2-ethylhexyl)phthalate	0.00784	0.00300	0.00800	0	98.0	40	125	3.66	30	
Butyl benzyl phthalate	0.00754	0.00600	0.00800	0	94.3	45	115	4.51	30	
Carbazole	0.00742	0.000800	0.00800	0	92.8	50	115	3.44	30	
Chrysene	0.00680	0.000800	0.00800	0	85.0	55	110	3.47	30	
Di-n-butyl phthalate	0.00800	0.00600	0.00800	0	100	55	115	3.63	30	
Di-n-octyl phthalate	0.00840	0.00600	0.00800	0	105	35	135	2.72	30	
Dibenz[a,h]anthracene	0.00882	0.000800	0.00800	0	110	40	125	2.91	30	
Dibenzofuran	0.00674	0.000800	0.00800	0	84.3	55	105	4.12	30	
Diethyl phthalate	0.00738	0.00600	0.00800	0	92.3	40	120	2.04	30	
Dimethyl phthalate	0.00711	0.00600	0.00800	0	88.9	25	125	3.70	30	
Fluoranthene	0.00790	0.000800	0.00800	0	98.7	55	115	3.53	30	
Fluorene	0.00687	0.000800	0.00800	0	85.9	50	110	2.13	30	
Hexachlorobenzene	0.00794	0.000800	0.00800	0	99.3	50	110	3.12	30	
Hexachlorobutadiene	0.00697	0.000800	0.00800	0	87.2	25	105	4.98	30	
Hexachlorocyclopentadiene	0.0102	0.00200	0.00800	0	127	25	125	3.59	30	S
Hexachloroethane	0.00566	0.000800	0.00800	0	70.7	30	100	6.10	30	
Indeno[1,2,3-cd]pyrene	0.00858	0.000800	0.00800	0	107	45	125	2.94	30	
Isophorone	0.00656	0.000800	0.00800	0	82.0	50	110	4.12	30	
N-Nitrosodi-n-propylamine	0.00538	0.000800	0.00800	0	67.3	35	130	4.08	30	
N-Nitrosodimethylamine	0.00368	0.000800	0.00800	0	46.1	25	110	6.00	30	
N-Nitrosodiphenylamine	0.0153	0.000800	0.0160	0	95.8	50	110	2.35	30	
Naphthalene	0.00668	0.000800	0.00800	0	83.4	40	100	4.57	30	
Nitrobenzene	0.00608	0.000800	0.00800	0	76.0	45	110	4.76	30	
Pentachlorobenzene	0.0136	0.000800	0.0160	0	85.3	35	120	4.44	30	
Pentachlorophenol	0.00746	0.000800	0.00800	0	93.3	40	115	5.22	30	
Phenanthrene	0.00701	0.000800	0.00800	0	87.7	50	115	2.87	30	
Phenol	0.00324	0.000800	0.00800	0	40.4	20	115	5.41	30	
Pyrene	0.00734	0.000800	0.00800	0	91.8	50	130	3.38	30	
Pyridine	0.00362	0.00200	0.00800	0	45.2	20	110	1.97	30	
Surr: 2,4,6-Tribromophenol	18.1		16.00		113	42	124	0	0	
Surr: 2-Fluorobiphenyl	15.7		16.00		98.0	50	110	0	0	
Surr: 2-Fluorophenol	11.1		16.00		69.5	20	110	0	0	
Surr: 4-Terphenyl-d14	16.2		16.00		101	51	135	0	0	
Surr: Nitrobenzene-d5	14.0		16.00		87.5	41	110	0	0	
Surr: Phenol-d6	6.84		16.00		42.8	20	115	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: MB-50902	Batch ID: 50902	TestNo: SW8270C	Units: mg/L							
SampType: MBLK	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 10:28:00 PM Prep Date: 3/12/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4,5-Tetrachlorobenzene	<0.000200	0.000800								N
1,2-Diphenylhydrazine	<0.000200	0.000800								
1-Methylnaphthalene	<0.000200	0.000800								
2,4,5-Trichlorophenol	<0.000200	0.000800								
2,4,6-Trichlorophenol	<0.000200	0.000800								
2,4-Dichlorophenol	<0.000200	0.000800								
2,4-Dimethylphenol	<0.000200	0.000800								
2,4-Dinitrophenol	<0.00100	0.00400								
2,4-Dinitrotoluene	<0.000200	0.000800								
2,6-Dichlorophenol	<0.000200	0.000800								
2,6-Dinitrotoluene	<0.000200	0.000800								
2-Chloronaphthalene	<0.000200	0.000800								
2-Chlorophenol	<0.000200	0.000800								
2-Methylnaphthalene	<0.000200	0.000800								
2-Methylphenol	<0.000200	0.000800								
2-Nitroaniline	<0.000200	0.000800								
2-Nitrophenol	<0.000200	0.000800								
3,3'-Dichlorobenzidine	<0.00100	0.00400								
3-Nitroaniline	<0.000200	0.000800								
4,6-Dinitro-2-methylphenol	<0.000600	0.00200								
4-Bromophenyl phenyl ether	<0.000200	0.000800								
4-Chloro-3-methylphenol	<0.000200	0.000800								
4-Chloroaniline	<0.000600	0.00200								
4-Chlorophenyl phenyl ether	<0.000200	0.000800								
4-Methylphenol	<0.000200	0.000800								
4-Nitroaniline	<0.000200	0.000800								
4-Nitrophenol	<0.00100	0.00400								
Acenaphthene	<0.000200	0.000800								
Acenaphthylene	<0.000200	0.000800								
Acetophenone	<0.000200	0.000800								
Aniline	<0.000200	0.000800								
Anthracene	<0.000200	0.000800								
Benzidine	<0.00200	0.00600								
Benzo[a]anthracene	<0.000200	0.000800								
Benzo[a]pyrene	<0.000200	0.000800								
Benzo[b]fluoranthene	<0.000200	0.000800								
Benzo[g,h,i]perylene	<0.000200	0.000800								
Benzo[k]fluoranthene	<0.000200	0.000800								
Benzoic acid	0.0103	0.00600								
Benzyl alcohol	<0.000600	0.00200								
Biphenyl	<0.000200	0.000800								

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: MB-50902	Batch ID: 50902	TestNo: SW8270C	Units: mg/L							
SampType: MBLK	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 10:28:00 PM Prep Date: 3/12/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bis(2-chloroethoxy)methane	<0.000200	0.000800								
Bis(2-chloroethyl)ether	<0.000200	0.000800								
Bis(2-chloroisopropyl)ether	<0.000200	0.000800								
Bis(2-ethylhexyl)phthalate	<0.00100	0.00300								
Butyl benzyl phthalate	<0.00200	0.00600								
Carbazole	<0.000200	0.000800								
Chrysene	<0.000200	0.000800								
Di-n-butyl phthalate	<0.00200	0.00600								
Di-n-octyl phthalate	<0.00200	0.00600								
Dibenz[a,h]anthracene	<0.000200	0.000800								
Dibenzofuran	<0.000200	0.000800								
Diethyl phthalate	<0.00200	0.00600								
Dimethyl phthalate	<0.00200	0.00600								
Fluoranthene	<0.000200	0.000800								
Fluorene	<0.000200	0.000800								
Hexachlorobenzene	<0.000200	0.000800								
Hexachlorobutadiene	<0.000200	0.000800								
Hexachlorocyclopentadiene	<0.000600	0.00200								
Hexachloroethane	<0.000200	0.000800								
Indeno[1,2,3-cd]pyrene	<0.000200	0.000800								
Isophorone	<0.000200	0.000800								
N-Nitrosodi-n-propylamine	<0.000100	0.000800								
N-Nitrosodimethylamine	<0.000200	0.000800								
N-Nitrosodiphenylamine	<0.000200	0.000800								
Naphthalene	<0.000200	0.000800								
Nitrobenzene	<0.000200	0.000800								
Pentachlorobenzene	<0.000200	0.000800								
Pentachlorophenol	<0.000200	0.000800								
Phenanthrene	<0.000200	0.000800								
Phenol	<0.000200	0.000800								
Pyrene	<0.000200	0.000800								
Pyridine	<0.000800	0.00200								
Surr: 2,4,6-Tribromophenol	18.3	16.00		114	42	124				
Surr: 2-Fluorobiphenyl	14.9	16.00		93.0	50	110				
Surr: 2-Fluorophenol	10.5	16.00		65.8	20	110				
Surr: 4-Terphenyl-d14	15.6	16.00		97.5	51	135				
Surr: Nitrobenzene-d5	13.6	16.00		85.2	41	110				
Surr: Phenol-d6	5.88	16.00		36.8	20	115				

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: ICV-120312	Batch ID: R59637	TestNo: SW8270C	Units: mg/L							
SampType: ICV	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 5:53:00 PM	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4,5-Tetrachlorobenzene	4.42	0.000800	4.00	0	111	80	120			
1,2-Diphenylhydrazine	3.55	0.000800	4.00	0	88.7	80	120			
1-Methylnaphthalene	7.58	0.000800	8.00	0	94.8	80	120			N
2,4,5-Trichlorophenol	4.71	0.000800	4.00	0	118	80	120			
2,4,6-Trichlorophenol	4.63	0.000800	4.00	0	116	80	120			
2,4-Dichlorophenol	4.63	0.000800	4.00	0	116	80	120			
2,4-Dimethylphenol	5.17	0.000800	4.00	0	129	80	120			S
2,4-Dinitrophenol	4.12	0.00400	4.00	0	103	80	120			
2,4-Dinitrotoluene	4.37	0.000800	4.00	0	109	80	120			
2,6-Dichlorophenol	4.47	0.000800	4.00	0	112	80	120			
2,6-Dinitrotoluene	4.07	0.000800	4.00	0	102	80	120			
2-Chloronaphthalene	3.93	0.000800	4.00	0	98.2	80	120			
2-Chlorophenol	3.97	0.000800	4.00	0	99.3	80	120			
2-Methylnaphthalene	4.08	0.000800	4.00	0	102	80	120			
2-Methylphenol	4.07	0.000800	4.00	0	102	80	120			
2-Nitroaniline	4.23	0.000800	4.00	0	106	80	120			
2-Nitrophenol	4.69	0.000800	4.00	0	117	80	120			
3,3'-Dichlorobenzidine	4.90	0.00400	4.00	0	122	80	120			S
3-Nitroaniline	4.39	0.000800	4.00	0	110	80	120			
4,6-Dinitro-2-methylphenol	4.26	0.00200	4.00	0	107	80	120			
4-Bromophenyl phenyl ether	4.62	0.000800	4.00	0	115	80	120			
4-Chloro-3-methylphenol	4.18	0.000800	4.00	0	104	80	120			
4-Chloroaniline	3.94	0.00200	4.00	0	98.6	80	120			
4-Chlorophenyl phenyl ether	4.10	0.000800	4.00	0	102	80	120			
4-Methylphenol	3.90	0.000800	4.00	0	97.6	80	120			
4-Nitroaniline	4.71	0.000800	4.00	0	118	80	120			
4-Nitrophenol	5.20	0.00400	4.00	0	130	80	120			S
Acenaphthene	3.99	0.000800	4.00	0	99.8	80	120			
Acenaphthylene	4.10	0.000800	4.00	0	103	80	120			
Acetophenone	3.62	0.000800	4.00	0	90.6	80	120			
Aniline	3.45	0.000800	4.00	0	86.2	80	120			
Anthracene	4.18	0.000800	4.00	0	104	80	120			
Benzidine	3.65	0.00600	4.00	0	91.3	80	120			
Benzo[a]anthracene	3.98	0.000800	4.00	0	99.5	80	120			
Benzo[a]pyrene	4.03	0.000800	4.00	0	101	80	120			
Benzo[b]fluoranthene	4.10	0.000800	4.00	0	103	80	120			
Benzo[g,h,i]perylene	4.33	0.000800	4.00	0	108	80	120			
Benzo[k]fluoranthene	3.78	0.000800	4.00	0	94.6	80	120			
Benzoic acid	3.82	0.00600	4.00	0	95.5	80	120			
Benzyl alcohol	3.58	0.00200	4.00	0	89.6	80	120			
Biphenyl	3.81	0.000800	4.00	0	95.2	80	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120312C

Sample ID: ICV-120312	Batch ID: R59637	TestNo: SW8270C		Units:	mg/L					
SampType: ICV	Run ID: GCMS9_120312C	Analysis Date: 3/12/2012 5:53:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bis(2-chloroethoxy)methane	3.78	0.000800	4.00	0	94.6	80	120			
Bis(2-chloroethyl)ether	3.52	0.000800	4.00	0	88.0	80	120			
Bis(2-chloroisopropyl)ether	2.94	0.000800	4.00	0	73.4	80	120			S
Bis(2-ethylhexyl)phthalate	4.05	0.00300	4.00	0	101	80	120			
Butyl benzyl phthalate	3.98	0.00600	4.00	0	99.5	80	120			
Carbazole	4.09	0.000800	4.00	0	102	80	120			
Chrysene	3.87	0.000800	4.00	0	96.8	80	120			
Di-n-butyl phthalate	4.14	0.00600	4.00	0	104	80	120			
Di-n-octyl phthalate	3.91	0.00600	4.00	0	97.8	80	120			
Dibenz[a,h]anthracene	4.16	0.000800	4.00	0	104	80	120			
Dibenzofuran	4.08	0.000800	4.00	0	102	80	120			
Diethyl phthalate	4.29	0.00600	4.00	0	107	80	120			
Dimethyl phthalate	4.31	0.00600	4.00	0	108	80	120			
Fluoranthene	4.21	0.000800	4.00	0	105	80	120			
Fluorene	3.96	0.000800	4.00	0	99.1	80	120			
Hexachlorobenzene	4.61	0.000800	4.00	0	115	80	120			
Hexachlorobutadiene	4.62	0.000800	4.00	0	116	80	120			
Hexachlorocyclopentadiene	5.00	0.00200	4.00	0	125	80	120			S
Hexachloroethane	3.84	0.000800	4.00	0	96.0	80	120			
Indeno[1,2,3-cd]pyrene	4.17	0.000800	4.00	0	104	80	120			
Isophorone	3.73	0.000800	4.00	0	93.2	80	120			
N-Nitrosodi-n-propylamine	3.22	0.000800	4.00	0	80.6	80	120			
N-Nitrosodimethylamine	3.43	0.000800	4.00	0	85.8	80	120			
N-Nitrosodiphenylamine	3.93	0.000800	4.00	0	98.2	80	120			
Naphthalene	3.94	0.000800	4.00	0	98.6	80	120			
Nitrobenzene	3.65	0.000800	4.00	0	91.3	80	120			
Pentachlorobenzene	4.30	0.000800	4.00	0	108	80	120			
Pentachlorophenol	4.26	0.000800	4.00	0	106	80	120			
Phenanthrene	3.87	0.000800	4.00	0	96.7	80	120			
Phenol	3.64	0.000800	4.00	0	91.0	80	120			
Pyrene	3.90	0.000800	4.00	0	97.6	80	120			
Pyridine	3.66	0.00200	4.00	0	91.6	80	120			
Surr: 2,4,6-Tribromophenol	4770		4000		119	80	120			
Surr: 2-Fluorobiphenyl	4040		4000		101	80	120			
Surr: 2-Fluorophenol	4020		4000		101	80	120			
Surr: 4-Terphenyl-d14	4090		4000		102	80	120			
Surr: Nitrobenzene-d5	3810		4000		95.2	80	120			
Surr: Phenol-d6	3870		4000		96.8	80	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120318A

The QC data in batch 50902 applies to the following samples: 1203088-01G

Sample ID: LCS-50902	Batch ID: 50902	TestNo:	SW8270C		Units:	mg/L				
SampType: LCS	Run ID: GCMS9_120318A		Analysis Date: 3/19/2012 12:24:00 AM			Prep Date:	3/12/2012			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Chloronaphthalene	0.00680	0.000800	0.00800	0	85.0	45	125			N
1-Naphthylamine	0.00652	0.000800	0.00800	0	81.5	45	125			
2-Naphthylamine	0.00640	0.000800	0.00800	0	80.0	45	125			
2-Picoline	0.00555	0.000800	0.00800	0	69.4	45	125			
3-Methylcholanthrene	0.00760	0.000800	0.00800	0	95.0	45	125			
4-Aminobiphenyl	0.00580	0.000800	0.00800	0	72.5	45	125			
7,12-Dimethylbenz(a)anthracene	0.00647	0.000800	0.00800	0	80.9	45	125			
Dibenz(a,j)acridine	0.00751	0.00400	0.00800	0	93.9	45	125			N
Dimethylphenethylamine	0.00468	0.00600	0.00800	0	58.5	45	125			
Diphenylamine	0.0127	0.000800	0.0160	0	79.5	45	125			
Ethyl methanesulfonate	0.00627	0.000800	0.00800	0	78.4	45	125			
Methyl methanesulfonate	0.00531	0.000800	0.00800	0	66.4	45	125			
N-Nitrosopiperidine	0.00700	0.000800	0.00800	0	87.6	45	125			
p-Dimethylaminoazobenzene	0.00790	0.000800	0.00800	0	98.8	45	125			N
Pentachloronitrobenzene	0.00824	0.000800	0.00800	0	103	45	125			
Phenacetin	0.00797	0.000800	0.00800	0	99.6	45	125			
Pronamide	0.00833	0.000800	0.00800	0	104	45	125			
Surr: 2,4,6-Tribromophenol	17.2		16.00		108	42	124			
Surr: 2-Fluorobiphenyl	14.4		16.00		90.0	50	110			
Surr: 2-Fluorophenol	12.3		16.00		77.0	20	110			
Surr: 4-Terphenyl-d14	14.9		16.00		93.3	51	135			
Surr: Nitrobenzene-d5	15.4		16.00		96.0	41	110			
Surr: Phenol-d6	7.88		16.00		49.2	20	115			

Sample ID: 1203088-01GMS	Batch ID: 50902	TestNo:	SW8270C		Units:	mg/L				
SampType: MS	Run ID: GCMS9_120318A		Analysis Date: 3/19/2012 2:19:00 AM			Prep Date:	3/12/2012			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Chloronaphthalene	0.00656	0.000800	0.00800	0	82.0	45	125			N
1-Naphthylamine	0.00606	0.000800	0.00800	0	75.8	45	125			
2-Naphthylamine	0.00631	0.000800	0.00800	0	78.8	45	125			
2-Picoline	0.00551	0.000800	0.00800	0	68.8	45	125			
3-Methylcholanthrene	0.00750	0.000800	0.00800	0	93.7	45	125			
4-Aminobiphenyl	0.00556	0.000800	0.00800	0	69.6	45	125			
7,12-Dimethylbenz(a)anthracene	0.00628	0.000800	0.00800	0	78.4	45	125			
Dibenz(a,j)acridine	0.00754	0.00400	0.00800	0	94.2	45	125			N
Dimethylphenethylamine	0.00564	0.00600	0.00800	0	70.5	45	125			
Diphenylamine	0.0123	0.000800	0.0160	0	76.6	45	125			
Ethyl methanesulfonate	0.00605	0.000800	0.00800	0	75.6	45	125			
Methyl methanesulfonate	0.00550	0.000800	0.00800	0	68.7	45	125			

Qualifiers:	B	Analyte detected in the associated Method Blank	DF	Dilution Factor		
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit		
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits		
	RL	Reporting Limit	S	Spike Recovery outside control limits		
	J	Analyte detected between SDL and RL	N	Parameter not NELAC certified		

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120318A

Sample ID: 1203088-01GMS	Batch ID: 50902	TestNo: SW8270C		Units:	mg/L					
SampType: MS	Run ID: GCMS9_120318A	Analysis Date: 3/19/2012 2:19:00 AM			Prep Date: 3/12/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosopiperidine	0.00684	0.000800	0.00800	0	85.5	45	125			
p-Dimethylaminoazobenzene	0.00796	0.000800	0.00800	0	99.5	45	125			N
Pentachloronitrobenzene	0.00810	0.000800	0.00800	0	101	45	125			
Phenacetin	0.00782	0.000800	0.00800	0	97.8	45	125			
Pronamide	0.00820	0.000800	0.00800	0	103	45	125			
Surr: 2,4,6-Tribromophenol	16.8		16.00		105	42	124			
Surr: 2-Fluorobiphenyl	14.2		16.00		88.8	50	110			
Surr: 2-Fluorophenol	11.7		16.00		73.0	20	110			
Surr: 4-Terphenyl-d14	14.6		16.00		91.5	51	135			
Surr: Nitrobenzene-d5	14.9		16.00		93.3	41	110			
Surr: Phenol-d6	7.88		16.00		49.2	20	115			

Sample ID: 1203088-01GMSD	Batch ID: 50902	TestNo: SW8270C		Units:	mg/L					
SampType: MSD	Run ID: GCMS9_120318A	Analysis Date: 3/19/2012 2:42:00 AM			Prep Date: 3/12/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Chloronaphthalene	0.00625	0.000800	0.00800	0	78.2	45	125	4.81	30	N
1-Naphthylamine	0.00583	0.000800	0.00800	0	72.9	45	125	3.90	30	
2-Naphthylamine	0.00595	0.000800	0.00800	0	74.4	45	125	5.81	30	
2-Picoline	0.00536	0.000800	0.00800	0	67.0	45	125	2.80	30	
3-Methylcholanthrene	0.00720	0.000800	0.00800	0	90.0	45	125	4.08	30	
4-Aminobiphenyl	0.00531	0.000800	0.00800	0	66.4	45	125	4.71	30	
7,12-Dimethylbenz(a)anthracene	0.00594	0.000800	0.00800	0	74.3	45	125	5.43	30	
Dibenz(a,j)acridine	0.00719	0.00400	0.00800	0	89.8	45	125	4.73	30	N
Dimethylphenethylamine	0.00592	0.00600	0.00800	0	74.0	45	125	4.84	30	
Diphenylamine	0.0118	0.000800	0.0160	0	73.8	45	125	3.79	30	
Ethyl methanesulfonate	0.00584	0.000800	0.00800	0	73.0	45	125	3.57	30	
Methyl methanesulfonate	0.00524	0.000800	0.00800	0	65.6	45	125	4.69	30	
N-Nitrosopiperidine	0.00653	0.000800	0.00800	0	81.6	45	125	4.61	30	
p-Dimethylaminoazobenzene	0.00751	0.000800	0.00800	0	93.8	45	125	5.84	30	N
Pentachloronitrobenzene	0.00772	0.000800	0.00800	0	96.5	45	125	4.91	30	
Phenacetin	0.00738	0.000800	0.00800	0	92.2	45	125	5.79	30	
Pronamide	0.00780	0.000800	0.00800	0	97.6	45	125	5.00	30	
Surr: 2,4,6-Tribromophenol	16.1		16.00		101	42	124	0	0	
Surr: 2-Fluorobiphenyl	13.8		16.00		86.2	50	110	0	0	
Surr: 2-Fluorophenol	11.2		16.00		69.8	20	110	0	0	
Surr: 4-Terphenyl-d14	14.0		16.00		87.8	51	135	0	0	
Surr: Nitrobenzene-d5	14.4		16.00		90.2	41	110	0	0	
Surr: Phenol-d6	7.44		16.00		46.5	20	115	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120318A

Sample ID: MB-50902	Batch ID: 50902	TestNo: SW8270C	Units: mg/L							
SampType: MBLK	Run ID: GCMS9_120318A	Analysis Date: 3/19/2012 4:14:00 AM	Prep Date: 3/12/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Chloronaphthalene	<0.000200	0.000800								N
1-Naphthylamine	<0.000200	0.000800								
2-Naphthylamine	<0.000200	0.000800								
2-Picoline	<0.000200	0.000800								
3-Methylcholanthrene	<0.000200	0.000800								
4-Aminobiphenyl	<0.000200	0.000800								
7,12-Dimethylbenz(a)anthracene	<0.000200	0.000800								
Dibenz(a,j)acridine	<0.00100	0.00400								N
Dimethylphenethylamine	<0.00200	0.00600								
Diphenylamine	<0.000200	0.000800								
Ethyl methanesulfonate	<0.000200	0.000800								
Methyl methanesulfonate	<0.000200	0.000800								
N-Nitrosopiperidine	<0.000200	0.000800								
p-Dimethylaminoazobenzene	<0.000200	0.000800								N
Pentachloronitrobenzene	<0.000200	0.000800								
Phenacetin	<0.000200	0.000800								
Pronamide	<0.000200	0.000800								
Surr: 2,4,6-Tribromophenol	14.7	16.00		92.0	42	124				
Surr: 2-Fluorobiphenyl	13.1	16.00		82.0	50	110				
Surr: 2-Fluorophenol	10.7	16.00		67.0	20	110				
Surr: 4-Terphenyl-d14	13.7	16.00		85.8	51	135				
Surr: Nitrobenzene-d5	13.9	16.00		86.8	41	110				
Surr: Phenol-d6	6.88	16.00		43.0	20	115				

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_120318A

Sample ID: ICV2-120319	Batch ID: R59643	TestNo:	SW8270C	Units:	mg/L					
SampType: ICV	Run ID: GCMS9_120318A	Analysis Date: 3/18/2012 11:15:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Chloronaphthalene	3.67	0.000800	4.00	0	91.8	80	120			N
1-Naphthylamine	3.86	0.000800	4.00	0	96.4	80	120			
2-Naphthylamine	3.80	0.000800	4.00	0	95.0	80	120			
2-Picoline	3.62	0.000800	4.00	0	90.5	80	120			
3-Methylcholanthrene	4.11	0.000800	4.00	0	103	80	120			
4-Aminobiphenyl	3.85	0.000800	4.00	0	96.2	80	120			
7,12-Dimethylbenz(a)anthracene	3.92	0.000800	4.00	0	97.9	80	120			
Dibenz(a,j)acridine	4.15	0.00400	4.00	0	104	80	120			N
Dimethylphenethylamine	4.00	0.00600	4.00	0	100	80	120			
Diphenylamine	3.66	0.000800	4.00	0	91.6	80	120			
Ethyl methanesulfonate	3.61	0.000800	4.00	0	90.3	80	120			
Methyl methanesulfonate	3.76	0.000800	4.00	0	94.0	80	120			
N-Nitrosopiperidine	3.94	0.000800	4.00	0	98.6	80	120			
p-Dimethylaminoazobenzene	3.96	0.000800	4.00	0	99.0	80	120			N
Pentachloronitrobenzene	4.30	0.000800	4.00	0	108	80	120			
Phenacetin	4.30	0.000800	4.00	0	107	80	120			
Pronamide	4.21	0.000800	4.00	0	105	80	120			
Surr: 2,4,6-Tribromophenol	4020		4000		101	80	120			
Surr: 2-Fluorobiphenyl	3610		4000		90.2	80	120			
Surr: 2-Fluorophenol	4070		4000		102	80	120			
Surr: 4-Terphenyl-d14	3660		4000		91.5	80	120			
Surr: Nitrobenzene-d5	3960		4000		99.0	80	120			
Surr: Phenol-d6	3930		4000		98.2	80	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

The QC data in batch 50889 applies to the following samples: 1203088-01A, 1203088-02A

Sample ID: LCS-50889	Batch ID: 50889	TestNo:	SW8260C		Units:	mg/L				
SampType: LCS	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 1:04:00 PM				Prep Date:	3/9/2012			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0218	0.00100	0.0232	0	93.8	80	130			
1,1,1-Trichloroethane	0.0209	0.00100	0.0232	0	89.9	65	130			
1,1,2,2-Tetrachloroethane	0.0245	0.00100	0.0232	0	106	65	130			
1,1,2-Trichloroethane	0.0216	0.00100	0.0232	0	93.0	75	125			
1,1-Dichloroethane	0.0201	0.00100	0.0232	0	86.7	70	135			
1,1-Dichloroethene	0.0214	0.00100	0.0232	0	92.4	70	130			
1,1-Dichloropropene	0.0213	0.00100	0.0232	0	91.7	75	130			
1,2,3-Trichlorobenzene	0.0252	0.00500	0.0232	0	109	55	140			
1,2,3-Trichloropropane	0.0239	0.00100	0.0232	0	103	75	125			
1,2,4-Trichlorobenzene	0.0249	0.00500	0.0232	0	107	65	135			
1,2,4-Trimethylbenzene	0.0241	0.00500	0.0232	0	104	75	130			
1,2-Dibromo-3-chloropropane	0.0232	0.0100	0.0232	0	99.9	50	130			
1,2-Dibromoethane	0.0225	0.00100	0.0232	0	97.2	80	120			
1,2-Dichlorobenzene	0.0229	0.00100	0.0232	0	98.8	70	120			
1,2-Dichloroethane	0.0207	0.00100	0.0232	0	89.3	70	130			
1,2-Dichloropropane	0.0216	0.00100	0.0232	0	93.3	75	125			
1,3,5-Trimethylbenzene	0.0236	0.00500	0.0232	0	102	75	130			
1,3-Dichlorobenzene	0.0231	0.00100	0.0232	0	99.5	75	125			
1,3-Dichloropropane	0.0225	0.00100	0.0232	0	97.2	75	125			
1,4-Dichloro-2-butene	0.0224	0.00200	0.0232	0	96.5	50	150			
1,4-Dichlorobenzene	0.0231	0.00100	0.0232	0	99.6	75	125			
2,2-Dichloropropane	0.0219	0.00100	0.0232	0	94.5	70	135			
2-Butanone	0.0228	0.0150	0.0232	0	98.4	30	150			
2-Chloroethylvinylether	0.0219	0.0150	0.0232	0	94.2	50	150			
2-Chlorotoluene	0.0229	0.00100	0.0232	0	98.8	75	125			
2-Hexanone	0.0236	0.0150	0.0232	0	102	55	130			
4-Chlorotoluene	0.0234	0.00100	0.0232	0	101	75	130			
4-Methyl-2-pentanone	0.0232	0.0150	0.0232	0	100	60	135			
Acetone	0.0252	0.0150	0.0232	0	109	40	140			
Acrylonitrile	0.0393	0.00300	0.0464	0	84.7	50	150			
Benzene	0.0213	0.00100	0.0232	0	91.7	80	120			
Bromobenzene	0.0221	0.00100	0.0232	0	95.1	75	125			
Bromochloromethane	0.0210	0.00100	0.0232	0	90.6	65	130			
Bromodichloromethane	0.0206	0.00100	0.0232	0	89.0	75	120			
Bromoform	0.0208	0.00100	0.0232	0	89.5	70	130			
Bromomethane	0.0190	0.00100	0.0232	0	81.9	30	145			
Carbon disulfide	0.0200	0.0150	0.0232	0	86.3	35	160			
Carbon tetrachloride	0.0209	0.00100	0.0232	0	90.0	65	140			
Chlorobenzene	0.0219	0.00100	0.0232	0	94.4	80	120			
Chloroethane	0.0214	0.00100	0.0232	0	92.5	60	135			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: LCS-50889	Batch ID: 50889	TestNo: SW8260C		Units: mg/L
SampType: LCS	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 1:04:00 PM Prep Date: 3/9/2012		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloroform	0.0202	0.00100	0.0232	0 87.1 65 135
Chloromethane	0.0226	0.00100	0.0232	0 97.4 40 125
cis-1,2-Dichloroethene	0.0197	0.00100	0.0232	0 84.7 70 125
cis-1,3-Dichloropropene	0.0212	0.00100	0.0232	0 91.5 70 130
Dibromochloromethane	0.0211	0.00100	0.0232	0 91.0 60 135
Dibromomethane	0.0212	0.00100	0.0232	0 91.4 75 125
Dichlorodifluoromethane	0.0217	0.00100	0.0232	0 93.4 30 155
Ethylbenzene	0.0218	0.00100	0.0232	0 93.9 75 125
Iodomethane	0.0150	0.0150	0.0232	0 64.9 50 150
Isopropylbenzene	0.0224	0.00100	0.0232	0 96.4 75 125
m,p-Xylene	0.0446	0.00200	0.0464	0 96.2 75 130
Methyl tert-butyl ether	0.0220	0.00100	0.0232	0 94.9 65 125
Methylene chloride	0.0232	0.00250	0.0232	0 99.8 55 140
n-Butylbenzene	0.0257	0.00100	0.0232	0 111 70 135
n-Propylbenzene	0.0238	0.00100	0.0232	0 103 70 130
o-Xylene	0.0222	0.00100	0.0232	0 95.9 80 120
p-Isopropyltoluene	0.0241	0.00100	0.0232	0 104 75 130
sec-Butylbenzene	0.0239	0.00100	0.0232	0 103 70 125
Styrene	0.0214	0.00100	0.0232	0 92.2 65 135
tert-Butylbenzene	0.0233	0.00100	0.0232	0 100 70 130
Tetrachloroethene	0.0209	0.00200	0.0232	0 90.1 45 150
Toluene	0.0207	0.00200	0.0232	0 89.3 75 120
trans-1,2-Dichloroethene	0.0203	0.00100	0.0232	0 87.3 60 140
trans-1,3-Dichloropropene	0.0208	0.00100	0.0232	0 89.5 55 140
Trichloroethene	0.0199	0.00200	0.0232	0 85.9 70 125
Trichlorofluoromethane	0.0205	0.00100	0.0232	0 88.5 60 145
Vinyl chloride	0.0228	0.00100	0.0232	0 98.2 50 145
Surr: 1,2-Dichloroethane-d4	202		200.0	101 70 120
Surr: 4-Bromofluorobenzene	209		200.0	104 75 120
Surr: Dibromofluoromethane	191		200.0	95.4 85 115
Surr: Toluene-d8	202		200.0	101 85 120

Sample ID: MB-50889	Batch ID: 50889	TestNo: SW8260C		Units: mg/L
SampType: MBLK	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 1:29:00 PM Prep Date: 3/9/2012		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
1,1,1,2-Tetrachloroethane	<0.000200	0.00100		
1,1,1-Trichloroethane	<0.000200	0.00100		
1,1,2,2-Tetrachloroethane	<0.000200	0.00100		
1,1,2-Trichloroethane	<0.000200	0.00100		
1,1-Dichloroethane	<0.000200	0.00100		

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: MB-50889	Batch ID: 50889	TestNo: SW8260C	Units: mg/L							
SampType: MBLK	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 1:29:00 PM Prep Date: 3/9/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	<0.000200	0.00100								
1,1-Dichloropropene	<0.000200	0.00100								
1,2,3-Trichlorobenzene	<0.00150	0.00500								
1,2,3-Trichloropropane	<0.000300	0.00100								
1,2,4-Trichlorobenzene	<0.00150	0.00500								
1,2,4-Trimethylbenzene	<0.00150	0.00500								
1,2-Dibromo-3-chloropropane	<0.00300	0.0100								
1,2-Dibromoethane	<0.000200	0.00100								
1,2-Dichlorobenzene	<0.000300	0.00100								
1,2-Dichloroethane	<0.000300	0.00100								
1,2-Dichloropropane	<0.000200	0.00100								
1,3,5-Trimethylbenzene	<0.00150	0.00500								
1,3-Dichlorobenzene	<0.000300	0.00100								
1,3-Dichloropropane	<0.000200	0.00100								
1,4-Dichloro-2-butene	<0.00200	0.00200								
1,4-Dichlorobenzene	<0.000300	0.00100								
2,2-Dichloropropane	<0.000200	0.00100								
2-Butanone	<0.00500	0.0150								
2-Chloroethylvinylether	<0.00500	0.0150								
2-Chlorotoluene	<0.000300	0.00100								
2-Hexanone	<0.00500	0.0150								
4-Chlorotoluene	<0.000300	0.00100								
4-Methyl-2-pentanone	<0.00500	0.0150								
Acetone	<0.00500	0.0150								
Acrylonitrile	<0.00100	0.00300								
Benzene	<0.000200	0.00100								
Bromobenzene	<0.000200	0.00100								
Bromochloromethane	<0.000200	0.00100								
Bromodichloromethane	<0.000200	0.00100								
Bromoform	<0.000200	0.00100								
Bromomethane	<0.000300	0.00100								
Carbon disulfide	<0.00500	0.0150								
Carbon tetrachloride	<0.000200	0.00100								
Chlorobenzene	<0.000200	0.00100								
Chloroethane	<0.000300	0.00100								
Chloroform	<0.000300	0.00100								
Chloromethane	<0.000300	0.00100								
cis-1,2-Dichloroethene	<0.000200	0.00100								
cis-1,3-Dichloropropene	<0.000200	0.00100								
Dibromochloromethane	<0.000200	0.00100								
Dibromomethane	<0.000200	0.00100								

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: MB-50889	Batch ID: 50889	TestNo: SW8260C	Units: mg/L							
SampType: MBLK	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 1:29:00 PM Prep Date: 3/9/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	<0.000200	0.00100								
Ethylbenzene	<0.000300	0.00100								
Iodomethane	<0.00500	0.0150								
Isopropylbenzene	<0.000200	0.00100								
m,p-Xylene	<0.000600	0.00200								
Methyl tert-butyl ether	<0.000300	0.00100								
Methylene chloride	<0.00250	0.00250								
n-Butylbenzene	<0.000300	0.00100								
n-Propylbenzene	<0.000300	0.00100								
o-Xylene	<0.000300	0.00100								
p-Isopropyltoluene	<0.000300	0.00100								
sec-Butylbenzene	<0.000300	0.00100								
Styrene	<0.000200	0.00100								
tert-Butylbenzene	<0.000300	0.00100								
Tetrachloroethene	<0.000600	0.00200								
Toluene	<0.000600	0.00200								
trans-1,2-Dichloroethene	<0.000200	0.00100								
trans-1,3-Dichloropropene	<0.000200	0.00100								
Trichloroethene	<0.000600	0.00200								
Trichlorofluoromethane	<0.000200	0.00100								
Vinyl chloride	<0.000100	0.00100								
Surr: 1,2-Dichloroethane-d4	197		200.0		98.3	70	120			
Surr: 4-Bromofluorobenzene	207		200.0		104	75	120			
Surr: Dibromofluoromethane	188		200.0		94.1	85	115			
Surr: Toluene-d8	203		200.0		101	85	120			

Sample ID: 1203088-01AMS	Batch ID: 50889	TestNo: SW8260C	Units: mg/L							
SampType: MS	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 3:32:00 PM Prep Date: 3/9/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0210	0.00100	0.0232	0	90.5	80	130			
1,1,1-Trichloroethane	0.0195	0.00100	0.0232	0	84.2	65	130			
1,1,2,2-Tetrachloroethane	0.0263	0.00100	0.0232	0	113	65	130			
1,1,2-Trichloroethane	0.0213	0.00100	0.0232	0	91.6	75	125			
1,1-Dichloroethane	0.0185	0.00100	0.0232	0	79.6	70	135			
1,1-Dichloroethene	0.0200	0.00100	0.0232	0.000280	85.0	70	130			
1,1-Dichloropropene	0.0204	0.00100	0.0232	0	87.9	75	130			
1,2,3-Trichlorobenzene	0.0222	0.00500	0.0232	0	95.5	55	140			
1,2,3-Trichloropropane	0.0259	0.00100	0.0232	0	112	75	125			
1,2,4-Trichlorobenzene	0.0223	0.00500	0.0232	0	96.0	65	135			
1,2,4-Trimethylbenzene	0.0230	0.00500	0.0232	0	98.9	75	130			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: 1203088-01AMS	Batch ID: 50889	TestNo: SW8260C		Units:	mg/L					
SampType: MS	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 3:32:00 PM			Prep Date: 3/9/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.0254	0.0100	0.0232	0	109	50	130			
1,2-Dibromoethane	0.0224	0.00100	0.0232	0	96.4	80	120			
1,2-Dichlorobenzene	0.0218	0.00100	0.0232	0	93.9	70	120			
1,2-Dichloroethane	0.0198	0.00100	0.0232	0	85.3	70	130			
1,2-Dichloropropane	0.0202	0.00100	0.0232	0	86.9	75	125			
1,3,5-Trimethylbenzene	0.0226	0.00500	0.0232	0	97.6	75	130			
1,3-Dichlorobenzene	0.0218	0.00100	0.0232	0	93.9	75	125			
1,3-Dichloropropane	0.0226	0.00100	0.0232	0	97.2	75	125			
1,4-Dichloro-2-butene	0.0239	0.00200	0.0232	0	103	50	150			
1,4-Dichlorobenzene	0.0218	0.00100	0.0232	0	94.1	75	125			
2,2-Dichloropropane	0.0203	0.00100	0.0232	0	87.5	70	135			
2-Butanone	0.0279	0.0150	0.0232	0	120	30	150			
2-Chloroethylvinylether	<0.00500	0.0150	0.0232	0	0	50	150			S
2-Chlorotoluene	0.0220	0.00100	0.0232	0	94.9	75	125			
2-Hexanone	0.0320	0.0150	0.0232	0	138	55	130			S
4-Chlorotoluene	0.0222	0.00100	0.0232	0	95.9	75	130			
4-Methyl-2-pentanone	0.0311	0.0150	0.0232	0	134	60	135			
Acetone	0.0254	0.0150	0.0232	0	109	40	140			
Acrylonitrile	0.0404	0.00300	0.0464	0	87.1	50	150			
Benzene	0.0200	0.00100	0.0232	0	86.0	80	120			
Bromobenzene	0.0211	0.00100	0.0232	0	91.0	75	125			
Bromochloromethane	0.0197	0.00100	0.0232	0	84.8	65	130			
Bromodichloromethane	0.0196	0.00100	0.0232	0	84.4	75	120			
Bromoform	0.0208	0.00100	0.0232	0	89.8	70	130			
Bromomethane	0.0164	0.00100	0.0232	0	70.9	30	145			
Carbon disulfide	0.0188	0.0150	0.0232	0	81.0	35	160			
Carbon tetrachloride	0.0194	0.00100	0.0232	0	83.8	65	140			
Chlorobenzene	0.0209	0.00100	0.0232	0	90.0	80	120			
Chloroethane	0.0196	0.00100	0.0232	0	84.4	60	135			
Chloroform	0.0191	0.00100	0.0232	0	82.2	65	135			
Chloromethane	0.0208	0.00100	0.0232	0	89.8	40	125			
cis-1,2-Dichloroethene	0.0184	0.00100	0.0232	0	79.4	70	125			
cis-1,3-Dichloropropene	0.0198	0.00100	0.0232	0	85.4	70	130			
Dibromochloromethane	0.0208	0.00100	0.0232	0	89.5	60	135			
Dibromomethane	0.0201	0.00100	0.0232	0	86.5	75	125			
Dichlorodifluoromethane	0.0206	0.00100	0.0232	0	88.6	30	155			
Ethylbenzene	0.0209	0.00100	0.0232	0	90.0	75	125			
Iodomethane	0.0132	0.0150	0.0232	0	57.0	50	150			
Isopropylbenzene	0.0209	0.00100	0.0232	0	90.1	75	125			
m,p-Xylene	0.0427	0.00200	0.0464	0	92.0	75	130			
Methyl tert-butyl ether	0.0218	0.00100	0.0232	0	94.2	65	125			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: 1203088-01AMS	Batch ID: 50889	TestNo: SW8260C			Units:	mg/L				
SampType: MS	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 3:32:00 PM			Prep Date:	3/9/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	0.0222	0.00250	0.0232	0	95.8	55	140			
n-Butylbenzene	0.0237	0.00100	0.0232	0	102	70	135			
n-Propylbenzene	0.0226	0.00100	0.0232	0	97.5	70	130			
o-Xylene	0.0209	0.00100	0.0232	0	90.0	80	120			
p-Isopropyltoluene	0.0224	0.00100	0.0232	0	96.8	75	130			
sec-Butylbenzene	0.0224	0.00100	0.0232	0	96.5	70	125			
Styrene	0.0197	0.00100	0.0232	0	84.7	65	135			
tert-Butylbenzene	0.0219	0.00100	0.0232	0	94.4	70	130			
Tetrachloroethene	0.0204	0.00200	0.0232	0	87.8	45	150			
Toluene	0.0196	0.00200	0.0232	0	84.7	75	120			
trans-1,2-Dichloroethene	0.0183	0.00100	0.0232	0	79.0	60	140			
trans-1,3-Dichloropropene	0.0195	0.00100	0.0232	0	83.8	55	140			
Trichloroethene	0.0202	0.00200	0.0232	0.000950	82.8	70	125			
Trichlorofluoromethane	0.0192	0.00100	0.0232	0	82.5	60	145			
Vinyl chloride	0.0214	0.00100	0.0232	0	92.1	50	145			
Surr: 1,2-Dichloroethane-d4	195		200.0		97.4	70	120			
Surr: 4-Bromofluorobenzene	208		200.0		104	75	120			
Surr: Dibromofluoromethane	185		200.0		92.7	85	115			
Surr: Toluene-d8	207		200.0		104	85	120			

Sample ID: 1203088-01AMSD	Batch ID: 50889	TestNo: SW8260C			Units:	mg/L				
SampType: MSD	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 3:56:00 PM			Prep Date:	3/9/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0219	0.00100	0.0232	0	94.5	80	130	4.38	30	
1,1,1-Trichloroethane	0.0206	0.00100	0.0232	0	88.8	65	130	5.28	30	
1,1,2,2-Tetrachloroethane	0.0269	0.00100	0.0232	0	116	65	130	2.33	30	
1,1,2-Trichloroethane	0.0221	0.00100	0.0232	0	95.3	75	125	3.96	30	
1,1-Dichloroethane	0.0196	0.00100	0.0232	0	84.3	70	135	5.68	30	
1,1-Dichloroethene	0.0213	0.00100	0.0232	0.000280	90.6	70	130	6.25	30	
1,1-Dichloropropene	0.0213	0.00100	0.0232	0	91.6	75	130	4.13	30	
1,2,3-Trichlorobenzene	0.0245	0.00500	0.0232	0	106	55	140	9.95	30	
1,2,3-Trichloropropane	0.0264	0.00100	0.0232	0	114	75	125	2.03	30	
1,2,4-Trichlorobenzene	0.0240	0.00500	0.0232	0	103	65	135	7.44	30	
1,2,4-Trimethylbenzene	0.0234	0.00500	0.0232	0	101	75	130	2.16	30	
1,2-Dibromo-3-chloropropane	0.0262	0.0100	0.0232	0	113	50	130	3.30	30	
1,2-Dibromoethane	0.0237	0.00100	0.0232	0	102	80	120	5.94	30	
1,2-Dichlorobenzene	0.0229	0.00100	0.0232	0	98.6	70	120	4.88	30	
1,2-Dichloroethane	0.0210	0.00100	0.0232	0	90.7	70	130	6.17	30	
1,2-Dichloropropane	0.0214	0.00100	0.0232	0	92.1	75	125	5.88	30	
1,3,5-Trimethylbenzene	0.0234	0.00500	0.0232	0	101	75	130	3.34	30	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: 1203088-01AMSD	Batch ID: 50889	TestNo: SW8260C		Units: mg/L						
SampType: MSD	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 3:56:00 PM			Prep Date: 3/9/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	0.0225	0.00100	0.0232	0	97.1	75	125	3.34	30	
1,3-Dichloropropane	0.0238	0.00100	0.0232	0	103	75	125	5.44	30	
1,4-Dichloro-2-butene	0.0243	0.00200	0.0232	0	105	50	150	1.66	30	
1,4-Dichlorobenzene	0.0229	0.00100	0.0232	0	98.5	75	125	4.61	30	
2,2-Dichloropropane	0.0209	0.00100	0.0232	0	90.0	70	135	2.86	30	
2-Butanone	0.0259	0.0150	0.0232	0	112	30	150	7.37	30	
2-Chloroethylvinylether	<0.00500	0.0150	0.0232	0	0	50	150	0	30	S
2-Chlorotoluene	0.0230	0.00100	0.0232	0	99.1	75	125	4.36	30	
2-Hexanone	0.0311	0.0150	0.0232	0	134	55	130	2.88	30	S
4-Chlorotoluene	0.0230	0.00100	0.0232	0	99.0	75	130	3.14	30	
4-Methyl-2-pentanone	0.0298	0.0150	0.0232	0	128	60	135	4.27	30	
Acetone	0.0259	0.0150	0.0232	0	111	40	140	1.79	30	
Acrylonitrile	0.0426	0.00300	0.0464	0	91.8	50	150	5.23	30	
Benzene	0.0207	0.00100	0.0232	0	89.3	80	120	3.74	30	
Bromobenzene	0.0222	0.00100	0.0232	0	95.6	75	125	4.90	30	
Bromochloromethane	0.0210	0.00100	0.0232	0	90.5	65	130	6.49	30	
Bromodichloromethane	0.0208	0.00100	0.0232	0	89.8	75	120	6.19	30	
Bromoform	0.0218	0.00100	0.0232	0	94.1	70	130	4.64	30	
Bromomethane	0.0180	0.00100	0.0232	0	77.8	30	145	9.28	30	
Carbon disulfide	0.0198	0.0150	0.0232	0	85.3	35	160	5.13	30	
Carbon tetrachloride	0.0205	0.00100	0.0232	0	88.2	65	140	5.21	30	
Chlorobenzene	0.0218	0.00100	0.0232	0	94.1	80	120	4.45	30	
Chloroethane	0.0173	0.00100	0.0232	0	74.6	60	135	12.3	30	
Chloroform	0.0203	0.00100	0.0232	0	87.5	65	135	6.15	30	
Chloromethane	0.0220	0.00100	0.0232	0	94.7	40	125	5.33	30	
cis-1,2-Dichloroethene	0.0201	0.00100	0.0232	0	86.5	70	125	8.63	30	
cis-1,3-Dichloropropene	0.0205	0.00100	0.0232	0	88.5	70	130	3.57	30	
Dibromochloromethane	0.0219	0.00100	0.0232	0	94.4	60	135	5.39	30	
Dibromomethane	0.0215	0.00100	0.0232	0	92.7	75	125	6.93	30	
Dichlorodifluoromethane	0.0212	0.00100	0.0232	0	91.3	30	155	2.92	30	
Ethylbenzene	0.0218	0.00100	0.0232	0	93.8	75	125	4.13	30	
Iodomethane	0.0148	0.0150	0.0232	0	64.0	50	150	11.5	30	
Isopropylbenzene	0.0219	0.00100	0.0232	0	94.4	75	125	4.72	30	
m,p-Xylene	0.0444	0.00200	0.0464	0	95.6	75	130	3.86	30	
Methyl tert-butyl ether	0.0228	0.00100	0.0232	0	98.2	65	125	4.17	30	
Methylene chloride	0.0240	0.00250	0.0232	0	103	55	140	7.74	30	
n-Butylbenzene	0.0248	0.00100	0.0232	0	107	70	135	4.55	30	
n-Propylbenzene	0.0235	0.00100	0.0232	0	101	70	130	3.73	30	
o-Xylene	0.0220	0.00100	0.0232	0	95.0	80	120	5.50	30	
p-Isopropyltoluene	0.0231	0.00100	0.0232	0	99.4	75	130	2.72	30	
sec-Butylbenzene	0.0231	0.00100	0.0232	0	99.5	70	125	3.08	30	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: 1203088-01AMSD	Batch ID: 50889	TestNo: SW8260C		Units: mg/L						
SampType: MSD	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 3:56:00 PM			Prep Date: 3/9/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Styrene	0.0198	0.00100	0.0232	0	85.5	65	135	0.911	30	
tert-Butylbenzene	0.0228	0.00100	0.0232	0	98.1	70	130	3.90	30	
Tetrachloroethene	0.0207	0.00200	0.0232	0	89.3	45	150	1.65	30	
Toluene	0.0203	0.00200	0.0232	0	87.6	75	120	3.40	30	
trans-1,2-Dichloroethene	0.0203	0.00100	0.0232	0	87.5	60	140	10.2	30	
trans-1,3-Dichloropropene	0.0206	0.00100	0.0232	0	88.7	55	140	5.65	30	
Trichloroethene	0.0210	0.00200	0.0232	0.000950	86.3	70	125	3.99	30	
Trichlorofluoromethane	0.0201	0.00100	0.0232	0	86.7	60	145	4.89	30	
Vinyl chloride	0.0224	0.00100	0.0232	0	96.7	50	145	4.89	30	
Surr: 1,2-Dichloroethane-d4	202		200.0		101	70	120	0	0	
Surr: 4-Bromofluorobenzene	205		200.0		103	75	120	0	0	
Surr: Dibromofluoromethane	187		200.0		93.6	85	115	0	0	
Surr: Toluene-d8	205		200.0		102	85	120	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: ICV-120309	Batch ID: R59514	TestNo: SW8260C		Units:	mg/L					
SampType: ICV	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 9:21:00 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0458	0.00100	0.0464	0	98.8	80	120			
1,1,1-Trichloroethane	0.0425	0.00100	0.0464	0	91.5	80	120			
1,1,2,2-Tetrachloroethane	0.0495	0.00100	0.0464	0	107	80	120			
1,1,2-Trichloroethane	0.0423	0.00100	0.0464	0	91.1	80	120			
1,1-Dichloroethane	0.0409	0.00100	0.0464	0	88.2	80	120			
1,1-Dichloroethene	0.0431	0.00100	0.0464	0	93.0	80	120			
1,1-Dichloropropene	0.0444	0.00100	0.0464	0	95.6	80	120			
1,2,3-Trichlorobenzene	0.0502	0.00500	0.0464	0	108	80	120			
1,2,3-Trichloropropane	0.0483	0.00100	0.0464	0	104	80	120			
1,2,4-Trichlorobenzene	0.0504	0.00500	0.0464	0	109	80	120			
1,2,4-Trimethylbenzene	0.0481	0.00500	0.0464	0	104	80	120			
1,2-Dibromo-3-chloropropane	0.0496	0.0100	0.0464	0	107	80	120			
1,2-Dibromoethane	0.0458	0.00100	0.0464	0	98.7	80	120			
1,2-Dichlorobenzene	0.0453	0.00100	0.0464	0	97.7	80	120			
1,2-Dichloroethane	0.0415	0.00100	0.0464	0	89.5	80	120			
1,2-Dichloropropane	0.0424	0.00100	0.0464	0	91.3	80	120			
1,3,5-Trimethylbenzene	0.0474	0.00500	0.0464	0	102	80	120			
1,3-Dichlorobenzene	0.0454	0.00100	0.0464	0	97.9	80	120			
1,3-Dichloropropane	0.0457	0.00100	0.0464	0	98.5	80	120			
1,4-Dichloro-2-butene	0.0477	0.00200	0.0464	0	103	80	120			
1,4-Dichlorobenzene	0.0450	0.00100	0.0464	0	96.9	80	120			
2,2-Dichloropropane	0.0473	0.00100	0.0464	0	102	80	120			
2-Butanone	0.0452	0.0150	0.0464	0	97.4	80	120			
2-Chloroethylvinylether	0.0439	0.0150	0.0464	0	94.7	80	120			
2-Chlorotoluene	0.0463	0.00100	0.0464	0	99.7	80	120			
2-Hexanone	0.0466	0.0150	0.0464	0	100	80	120			
4-Chlorotoluene	0.0468	0.00100	0.0464	0	101	80	120			
4-Methyl-2-pentanone	0.0472	0.0150	0.0464	0	102	80	120			
Acetone	0.0493	0.0150	0.0464	0	106	80	120			
Acrylonitrile	0.0776	0.00300	0.0928	0	83.7	60	140			
Benzene	0.0425	0.00100	0.0464	0	91.6	80	120			
Bromobenzene	0.0441	0.00100	0.0464	0	95.0	80	120			
Bromochloromethane	0.0416	0.00100	0.0464	0	89.6	80	120			
Bromodichloromethane	0.0430	0.00100	0.0464	0	92.8	80	120			
Bromoform	0.0467	0.00100	0.0464	0	101	80	120			
Bromomethane	0.0379	0.00100	0.0464	0	81.6	80	120			
Carbon disulfide	0.0410	0.0150	0.0464	0	88.4	80	120			
Carbon tetrachloride	0.0454	0.00100	0.0464	0	97.8	80	120			
Chlorobenzene	0.0433	0.00100	0.0464	0	93.4	80	120			
Chloroethane	0.0358	0.00100	0.0464	0	77.2	80	120			
Chloroform	0.0408	0.00100	0.0464	0	88.0	80	120			S

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120309B

Sample ID: ICV-120309	Batch ID: R59514	TestNo: SW8260C		Units:	mg/L					
SampType: ICV	Run ID: GCMS7_120309B	Analysis Date: 3/9/2012 9:21:00 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	0.0448	0.00100	0.0464	0	96.5	80	120			
cis-1,2-Dichloroethene	0.0400	0.00100	0.0464	0	86.2	80	120			
cis-1,3-Dichloropropene	0.0442	0.00100	0.0464	0	95.3	80	120			
Dibromochloromethane	0.0458	0.00100	0.0464	0	98.7	80	120			
Dibromomethane	0.0415	0.00100	0.0464	0	89.5	80	120			
Dichlorodifluoromethane	0.0436	0.00100	0.0464	0	93.9	80	120			
Ethylbenzene	0.0432	0.00100	0.0464	0	93.1	80	120			
Iodomethane	0.0307	0.0150	0.0464	0	66.1	80	120			S
Isopropylbenzene	0.0442	0.00100	0.0464	0	95.3	80	120			
m,p-Xylene	0.0878	0.00200	0.0928	0	94.6	80	120			
Methyl tert-butyl ether	0.0448	0.00100	0.0464	0	96.6	80	120			
Methylene chloride	0.0472	0.00250	0.0464	0	102	80	120			
n-Butylbenzene	0.0514	0.00100	0.0464	0	111	80	120			
n-Propylbenzene	0.0472	0.00100	0.0464	0	102	80	120			
o-Xylene	0.0439	0.00100	0.0464	0	94.7	80	120			
p-Isopropyltoluene	0.0469	0.00100	0.0464	0	101	80	120			
sec-Butylbenzene	0.0470	0.00100	0.0464	0	101	80	120			
Styrene	0.0427	0.00100	0.0464	0	92.1	80	120			
tert-Butylbenzene	0.0462	0.00100	0.0464	0	99.5	80	120			
Tetrachloroethene	0.0425	0.00200	0.0464	0	91.6	80	120			
Toluene	0.0398	0.00200	0.0464	0	85.8	80	120			
trans-1,2-Dichloroethene	0.0415	0.00100	0.0464	0	89.5	80	120			
trans-1,3-Dichloropropene	0.0442	0.00100	0.0464	0	95.2	80	120			
Trichloroethene	0.0400	0.00200	0.0464	0	86.2	80	120			
Trichlorofluoromethane	0.0348	0.00100	0.0464	0	75.1	80	120			S
Vinyl chloride	0.0453	0.00100	0.0464	0	97.7	80	120			
Surr: 1,2-Dichloroethane-d4	205		200.0		103	70	120			
Surr: 4-Bromofluorobenzene	209		200.0		105	75	120			
Surr: Dibromofluoromethane	190		200.0		95.0	85	115			
Surr: Toluene-d8	206		200.0		103	85	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_120309A

The QC data in batch 50885 applies to the following samples: 1203088-01F

Sample ID:	MB-50885	Batch ID:	50885	TestNo:	E300	Units:	mg/L				
SampType:	MLBK	Run ID:	IC2_120309A	Analysis Date: 3/9/2012 10:08:14 AM		Prep Date:	3/9/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		<0.300	1.00								
Sulfate		<1.00	3.00								
Sample ID:	LCS-50885	Batch ID:	50885	TestNo:	E300	Units:	mg/L				
SampType:	LCS	Run ID:	IC2_120309A	Analysis Date: 3/9/2012 10:31:26 AM		Prep Date:	3/9/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		9.67	1.00	10.00	0	96.7	90	110			
Sulfate		29.2	3.00	30.00	0	97.3	90	110			
Sample ID:	LCSD-50885	Batch ID:	50885	TestNo:	E300	Units:	mg/L				
SampType:	LCSD	Run ID:	IC2_120309A	Analysis Date: 3/9/2012 10:46:01 AM		Prep Date:	3/9/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		9.66	1.00	10.00	0	96.6	90	110	0.145	20	
Sulfate		29.2	3.00	30.00	0	97.4	90	110	0.104	20	
Sample ID:	1203088-01F DUP	Batch ID:	50885	TestNo:	E300	Units:	mg/L				
SampType:	DUP	Run ID:	IC2_120309A	Analysis Date: 3/9/2012 2:10:58 PM		Prep Date:	3/9/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		1240	100	0	1286				3.56	10	
Sulfate		7420	300	0	7757				4.40	10	
Sample ID:	1203088-01F MS	Batch ID:	50885	TestNo:	E300	Units:	mg/L				
SampType:	MS	Run ID:	IC2_120309A	Analysis Date: 3/9/2012 2:27:35 PM		Prep Date:	3/9/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		1800	100	1000	771.5	103	90	110			
Sulfate		7910	300	3000	4654	109	90	110			
Sample ID:	1203088-01F MSD	Batch ID:	50885	TestNo:	E300	Units:	mg/L				
SampType:	MSD	Run ID:	IC2_120309A	Analysis Date: 3/9/2012 2:42:10 PM		Prep Date:	3/9/2012				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		1800	100	1000	771.5	103	90	110	0.065	20	
Sulfate		7890	300	3000	4654	108	90	110	0.265	20	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_120309A

Sample ID: ICV-120309	Batch ID: R59508	TestNo: E300			Units: mg/L					
SampType: ICV	Run ID: IC2_120309A	Analysis Date: 3/9/2012 8:49:18 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	24.7	1.00	25.00	0	98.8	90	110			
Sulfate	74.1	3.00	75.00	0	98.8	90	110			

Sample ID: CCV1-120309	Batch ID: R59508	TestNo: E300			Units: mg/L					
SampType: CCV	Run ID: IC2_120309A	Analysis Date: 3/9/2012 12:48:38 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.71	1.00	10.00	0	97.1	90	110			
Sulfate	29.5	3.00	30.00	0	98.3	90	110			

Sample ID: CCV2-120309	Batch ID: R59508	TestNo: E300			Units: mg/L					
SampType: CCV	Run ID: IC2_120309A	Analysis Date: 3/9/2012 4:12:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.61	1.00	10.00	0	96.1	90	110			
Sulfate	29.2	3.00	30.00	0	97.4	90	110			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_120309A

The QC data in batch 50888 applies to the following samples: 1203088-01F

Sample ID: 1203076-01A DUP		Batch ID: 50888		TestNo: M4500-H+ B		Units: pH Units	
SampType: DUP		Run ID: TITRATOR_120309A		Analysis Date: 3/9/2012 10:07:00 AM		Prep Date: 3/9/2012	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit HighLimit %RPD RPDLimit Qual
pH		7.39	0	0	7.380	0.135	5
Sample ID: 1203088-01F DUP		Batch ID: 50888		TestNo: M4500-H+ B		Units: pH Units	
SampType: DUP		Run ID: TITRATOR_120309A		Analysis Date: 3/9/2012 11:01:00 AM		Prep Date: 3/9/2012	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit HighLimit %RPD RPDLimit Qual
pH		7.40	0	0	7.380	0.271	5

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_120309A

Sample ID: ICV-120309	Batch ID: R59504	TestNo: M4500-H+ B	Units: pH Units							
SampType: ICV	Run ID: TITRATOR_120309A	Analysis Date: 3/9/2012 10:04:00 AM	Prep Date: 3/9/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	10.0	0	10.00	0	100	99	101			
Sample ID: CCV1-120309	Batch ID: R59504	TestNo: M4500-H+ B	Units: pH Units							
SampType: CCV	Run ID: TITRATOR_120309A	Analysis Date: 3/9/2012 10:08:00 AM	Prep Date: 3/9/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.01	0	7.000	0	100	97.1	102.9			
Sample ID: CCV2-120309	Batch ID: R59504	TestNo: M4500-H+ B	Units: pH Units							
SampType: CCV	Run ID: TITRATOR_120309A	Analysis Date: 3/9/2012 11:02:00 AM	Prep Date: 3/9/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.00	0	7.000	0	100	97.1	102.9			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_120309B

The QC data in batch 50895 applies to the following samples: 1203088-01F

Sample ID: LCS-50895	Batch ID: 50895	TestNo: M2320 B	Units: mg/L							
SampType: LCS	Run ID: TITRATOR_120309B	Analysis Date: 3/9/2012 12:02:00 PM	Prep Date: 3/9/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.6	20.0	50.00	0	105	74	129			
Sample ID: MB-50895	Batch ID: 50895	TestNo: M2320 B	Units: mg/L							
SampType: MBLK	Run ID: TITRATOR_120309B	Analysis Date: 3/9/2012 12:03:00 PM	Prep Date: 3/9/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<10.0	20.0								
Sample ID: 1203088-01F DUP	Batch ID: 50895	TestNo: M2320 B	Units: mg/L							
SampType: DUP	Run ID: TITRATOR_120309B	Analysis Date: 3/9/2012 12:16:00 PM	Prep Date: 3/9/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	245	20.0	0	245.7				0.244	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	245	20.0	0	245.7				0.244	20	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_120309B

Sample ID: ICV-120309	Batch ID: R59509	TestNo:	M2320 B	Units:	mg/L					
SampType: ICV	Run ID: TITRATOR_120309B	Analysis Date: 3/9/2012 11:58:00 AM		Prep Date:	3/9/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	16.8	20.0	0							
Alkalinity, Carbonate (As CaCO3)	84.2	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	101	20.0	100.0	0	101	98	102			

Sample ID: CCV-120309	Batch ID: R59509	TestNo:	M2320 B	Units:	mg/L					
SampType: CCV	Run ID: TITRATOR_120309B	Analysis Date: 3/9/2012 12:21:00 PM		Prep Date:	3/9/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	20.5	20.0	0							
Alkalinity, Carbonate (As CaCO3)	79.5	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	100	20.0	100.0	0	100	90	110			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: TOC_120314A

The QC data in batch 50940 applies to the following samples: 1203088-01C

Sample ID: LCS-50940	Batch ID: 50940	TestNo: M5310C	Units: mg/L							
SampType: LCS	Run ID: TOC_120314A	Analysis Date: 3/14/2012 9:37:00 AM	Prep Date: 3/14/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	10.1	1.00	10.00	0	101	80	120			
Sample ID: MB-50940	Batch ID: 50940	TestNo: M5310C	Units: mg/L							
SampType: MLBK	Run ID: TOC_120314A	Analysis Date: 3/14/2012 10:02:00 AM	Prep Date: 3/14/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	<0.300	1.00								
Sample ID: 1203088-01C MS	Batch ID: 50940	TestNo: M5310C	Units: mg/L							
SampType: MS	Run ID: TOC_120314A	Analysis Date: 3/14/2012 10:47:00 AM	Prep Date: 3/14/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	10.2	1.00	10.00	0.6609	95.7	80	120			
Sample ID: 1203088-01C MSD	Batch ID: 50940	TestNo: M5310C	Units: mg/L							
SampType: MSD	Run ID: TOC_120314A	Analysis Date: 3/14/2012 11:11:00 AM	Prep Date: 3/14/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	10.4	1.00	10.00	0.6609	97.7	80	120	1.92	15	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203088
Project: HELSTF Construction Landfill

ANALYTICAL QC SUMMARY REPORT

RunID: TOC_120314A

Sample ID: ICV-120314	Batch ID: R59575	TestNo:	M5310C	Units:	mg/L					
SampType: ICV	Run ID: TOC_120314A	Analysis Date: 3/14/2012 9:17:00 AM		Prep Date:	3/14/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	15.4	1.00	15.00	0	103	90	110			
Sample ID: CCV-120314	Batch ID: R59575	TestNo:	M5310C	Units:	mg/L					
SampType: CCV	Run ID: TOC_120314A	Analysis Date: 3/14/2012 2:23:00 PM		Prep Date:	3/14/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	10.1	1.00	10.00	0	101	80	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

Sequence Report**Run ID: CETAC_HG_120319A**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120319	----	SW7470A	R59667	1	3/19/2012 1:48:13 PM		A
ICB-120319	----	SW7470A	R59667	1	3/19/2012 1:50:17 PM		A
MB-50979	----	SW7470A	50979	1	3/19/2012 1:56:23 PM	3/15/2012 1:37:40 PM	A
MB-50994	----	SW7470A	50994	1	3/19/2012 1:58:25 PM	3/16/2012 9:42:52 AM	A
Filter Blank-50994	----	SW7470A	50994	1	3/19/2012 2:00:28 PM	3/16/2012 9:42:52 AM	A
LCS-50979	----	SW7470A	50979	1	3/19/2012 2:06:35 PM	3/15/2012 1:37:40 PM	A
LCSD-50979	----	SW7470A	50979	1	3/19/2012 2:08:38 PM	3/15/2012 1:37:40 PM	A
LCS-50994	----	SW7470A	50994	1	3/19/2012 2:10:41 PM	3/16/2012 9:42:52 AM	A
CCV1-120319	----	SW7470A	R59667	1	3/19/2012 2:12:45 PM		A
CCB1-120319	----	SW7470A	R59667	1	3/19/2012 2:14:50 PM		A
LCSD-50994	----	SW7470A	50994	1	3/19/2012 2:38:11 PM	3/16/2012 9:42:52 AM	A
CCV2-120319	----	SW7470A	R59667	1	3/19/2012 2:40:16 PM		A
CCB2-120319	----	SW7470A	R59667	1	3/19/2012 2:42:21 PM		A
1203088-01D	HLSF-3839-HMW-008-0312	SW7470A	50979	1	3/19/2012 2:58:52 PM	3/15/2012 1:37:40 PM	A
1203088-01D SD	HLSF-3839-HMW-008-0312	SW7470A	50979	5	3/19/2012 3:00:56 PM	3/15/2012 1:37:40 PM	A
1203088-01D PDS	HLSF-3839-HMW-008-0312	SW7470A	50979	1	3/19/2012 3:03:01 PM	3/15/2012 1:37:40 PM	A
CCV3-120319	----	SW7470A	R59667	1	3/19/2012 3:05:06 PM		A
CCB3-120319	----	SW7470A	R59667	1	3/19/2012 3:07:11 PM		A
1203088-01D MS	HLSF-3839-HMW-008-0312MS	SW7470A	50979	1	3/19/2012 3:09:15 PM	3/15/2012 1:37:40 PM	A
1203088-01D MSD	HLSF-3839-HMW-008-	SW7470A	50979	1	3/19/2012 3:11:19 PM	3/15/2012 1:37:40 PM	A
1203088-01E	HLSF-3839-HMW-008-0312	SW7470A	50994	1	3/19/2012 3:25:53 PM	3/16/2012 9:42:52 AM	A
1203088-01E SD	HLSF-3839-HMW-008-0312	SW7470A	50994	5	3/19/2012 3:27:58 PM	3/16/2012 9:42:52 AM	A
CCV4-120319	----	SW7470A	R59667	1	3/19/2012 3:30:03 PM		A
CCB4-120319	----	SW7470A	R59667	1	3/19/2012 3:32:08 PM		A
1203088-01E PDS	HLSF-3839-HMW-008-0312	SW7470A	50994	1	3/19/2012 3:34:13 PM	3/16/2012 9:42:52 AM	A
1203088-01E MS	HLSF-3839-HMW-008-0312MS	SW7470A	50994	1	3/19/2012 3:36:17 PM	3/16/2012 9:42:52 AM	A
1203088-01E MSD	HLSF-3839-HMW-008-	SW7470A	50994	1	3/19/2012 3:38:23 PM	3/16/2012 9:42:52 AM	A
CCV5-120319	----	SW7470A	R59667	1	3/19/2012 3:53:01 PM		A
CCB5-120319	----	SW7470A	R59667	1	3/19/2012 3:55:06 PM		A

Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

Sequence Report**Run ID: GC15_120318A**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120318	-----	M8015D	R59651	1	3/18/2012 9:34:23 AM		A
LCS-50939	-----	M8015D	50939	1	3/18/2012 9:46:54 AM	3/14/2012 9:24:50 AM	A
MB-50939	-----	M8015D	50939	1	3/18/2012 10:13:15 AM	3/14/2012 9:24:50 AM	A
1203088-01H	HLSF-3839-HMW-008-0312	M8015D	50939	1	3/18/2012 10:22:02 AM	3/14/2012 9:24:50 AM	A
1203088-01HMS	HLSF-3839-HMW-008-0312MS	M8015D	50939	1	3/18/2012 10:30:49 AM	3/14/2012 9:24:50 AM	A
1203088-01HMSD	HLSF-3839-HMW-008-	M8015D	50939	1	3/18/2012 10:39:35 AM	3/14/2012 9:24:50 AM	A
CCV1-120318	-----	M8015D	R59651	1	3/18/2012 11:23:24 AM		A
1203126-05EMS	-----	M8015D	50939	1	3/18/2012 12:33:38 PM	3/14/2012 11:39:00 AM	A
1203126-05EMSD	-----	M8015D	50939	1	3/18/2012 12:42:24 PM	3/14/2012 11:39:00 AM	A
CCV2-120318	-----	M8015D	R59651	1	3/18/2012 1:08:43 PM		A

Run ID: GC4_120316A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120316	-----	M8015V	R59634	1	3/16/2012 10:45:16 AM		A
LCS-50997	-----	M8015V	50997	1	3/16/2012 11:11:25 AM	3/16/2012 9:49:28 AM	A
MB-50997	-----	M8015V	50997	1	3/16/2012 12:01:29 PM	3/16/2012 9:49:28 AM	A
1203088-01B	HLSF-3839-HMW-008-0312	M8015V	50997	1	3/16/2012 2:58:49 PM	3/16/2012 9:49:28 AM	A
1203088-01BMS	HLSF-3839-HMW-008-0312MS	M8015V	50997	1	3/16/2012 3:23:51 PM	3/16/2012 9:49:28 AM	A
1203088-01BMSD	HLSF-3839-HMW-008-	M8015V	50997	1	3/16/2012 3:50:02 PM	3/16/2012 9:49:28 AM	A
CCV1-120316	-----	M8015V	R59634	1	3/16/2012 4:14:51 PM		A

Run ID: GCMS7_120309B

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120309	-----	SW8260C	R59514	1	3/9/2012 9:21:00 AM		A
LCS-50889	-----	SW8260C	50889	1	3/9/2012 1:04:00 PM	3/9/2012 12:07:55 PM	A
MB-50889	-----	SW8260C	50889	1	3/9/2012 1:29:00 PM	3/9/2012 12:07:55 PM	A
1203088-01A	HLSF-3839-HMW-008-0312	SW8260C	50889	1	3/9/2012 1:53:00 PM	3/9/2012 12:07:55 PM	A
1203088-02A	HLSF-3839-HMW-TB-0312	SW8260C	50889	1	3/9/2012 2:18:00 PM	3/9/2012 12:07:55 PM	T
1203088-01AMS	HLSF-3839-HMW-008-0312MS	SW8260C	50889	1	3/9/2012 3:32:00 PM	3/9/2012 12:07:55 PM	A
1203088-01AMSD	HLSF-3839-HMW-008-	SW8260C	50889	1	3/9/2012 3:56:00 PM	3/9/2012 12:07:55 PM	A

Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

Sequence Report**Run ID: GCMS9_120312C**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
DFTPP-120312	-----	SW8270C	R59637	1	3/12/2012 5:33:00 PM		A
ICV-120312	-----	SW8270C	R59637	1	3/12/2012 5:53:00 PM		A
LCS-50902	-----	SW8270C	50902	1	3/12/2012 6:39:00 PM	3/12/2012 8:49:37 AM	A
1203088-01GMS	HLSF-3839-HMW-008-0312MS	SW8270C	50902	1	3/12/2012 7:48:00 PM	3/12/2012 8:49:37 AM	A
1203088-01GMSD	HLSF-3839-HMW-008-	SW8270C	50902	1	3/12/2012 8:11:00 PM	3/12/2012 8:49:37 AM	A
MB-50902	-----	SW8270C	50902	1	3/12/2012 10:28:00 PM	3/12/2012 8:49:37 AM	A
1203088-01G	HLSF-3839-HMW-008-0312	SW8270C	50902	1	3/12/2012 11:14:00 PM	3/12/2012 8:49:37 AM	A

Run ID: GCMS9_120318A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
DFTPP2-120318	-----	SW8270C	R59643	1	3/18/2012 10:10:00 PM		A
ICV2-120319	-----	SW8270C	R59643	1	3/18/2012 11:15:00 PM		A
LCS-50902	-----	SW8270C	50902	1	3/19/2012 12:24:00 AM	3/12/2012 8:49:37 AM	A
1203088-01GMS	HLSF-3839-HMW-008-0312MS	SW8270C	50902	1	3/19/2012 2:19:00 AM	3/12/2012 8:49:37 AM	A
1203088-01GMSD	HLSF-3839-HMW-008-	SW8270C	50902	1	3/19/2012 2:42:00 AM	3/12/2012 8:49:37 AM	A
MB-50902	-----	SW8270C	50902	1	3/19/2012 4:14:00 AM	3/12/2012 8:49:37 AM	A
1203088-01G	HLSF-3839-HMW-008-0312	SW8270C	50902	1	3/19/2012 5:23:00 AM	3/12/2012 8:49:37 AM	A

Run ID: IC2_120309A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120309	-----	E300	R59508	1	3/9/2012 8:49:18 AM		A
MB-50885	-----	E300	50885	1	3/9/2012 10:08:14 AM	3/9/2012 9:45:00 AM	A
LCS-50885	-----	E300	50885	1	3/9/2012 10:31:26 AM	3/9/2012 9:45:00 AM	A
LCSD-50885	-----	E300	50885	1	3/9/2012 10:46:01 AM	3/9/2012 9:45:00 AM	A
CCV1-120309	-----	E300	R59508	1	3/9/2012 12:48:38 PM		A
1203088-01F	HLSF-3839-HMW-008-0312	E300	50885	100	3/9/2012 1:43:31 PM	3/9/2012 1:00:00 PM	A
1203088-01F DUP	HLSF-3839-HMW-008-0312PD9	E300	50885	100	3/9/2012 2:10:58 PM	3/9/2012 1:00:00 PM	A
1203088-01F MS	HLSF-3839-HMW-008-0312MS	E300	50885	100	3/9/2012 2:27:35 PM	3/9/2012 1:00:00 PM	A
1203088-01F MSD	HLSF-3839-HMW-008-	E300	50885	100	3/9/2012 2:42:10 PM	3/9/2012 1:00:00 PM	A
CCV2-120309	-----	E300	R59508	1	3/9/2012 4:12:00 PM		A

Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

Sequence Report**Run ID: ICP-MS2_120319B**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
BLANK STD 1	-----	SW6020	R59662	1	3/19/2012 4:19:00 PM		A
1 & 20ppb std 2	-----	SW6020	R59662	1	3/19/2012 4:25:00 PM		A
10 & 200ppb std 3	-----	SW6020	R59662	1	3/19/2012 4:31:00 PM		A
250 & 5000ppb std 4	-----	SW6020	R59662	1	3/19/2012 4:37:00 PM		A
500 & 10000ppb std	-----	SW6020	R59662	1	3/19/2012 4:42:00 PM		A
2000 ppb std 6	-----	SW6020	R59662	1	3/19/2012 4:48:00 PM		A
ICSA-120319	-----	SW6020	R59662	1	3/19/2012 5:05:00 PM		A
ICSAB-120319	-----	SW6020	R59662	1	3/19/2012 5:11:00 PM		A
ICV2-120319	-----	SW6020	R59662	1	3/19/2012 5:41:00 PM		A
ICB2-120319	-----	SW6020	R59662	1	3/19/2012 5:59:00 PM		A
MB-50958	-----	SW6020	50958	1	3/19/2012 6:05:00 PM	3/15/2012 8:32:12 AM	A
LCS-50958	-----	SW6020	50958	1	3/19/2012 6:11:00 PM	3/15/2012 8:32:12 AM	A
LCSD-50958	-----	SW6020	50958	1	3/19/2012 6:16:00 PM	3/15/2012 8:32:12 AM	A
1203088-01D	HLSF-3839-HMW-008-0312	SW6020	50958	1	3/19/2012 6:28:00 PM	3/15/2012 8:32:12 AM	A
1203088-01D SD	HLSF-3839-HMW-008-0312	SW6020	50958	5	3/19/2012 6:34:00 PM	3/15/2012 8:32:12 AM	A
1203088-01D PDS	HLSF-3839-HMW-008-0312	SW6020	50958	1	3/19/2012 7:15:00 PM	3/15/2012 8:32:12 AM	A
1203088-01D MS	HLSF-3839-HMW-008-0312MS	SW6020	50958	1	3/19/2012 7:20:00 PM	3/15/2012 8:32:12 AM	A
1203088-01D MSD	HLSF-3839-HMW-008-	SW6020	50958	1	3/19/2012 7:26:00 PM	3/15/2012 8:32:12 AM	A
CCV3-120319	-----	SW6020	R59662	1	3/19/2012 7:38:00 PM		A
CCB3-120319	-----	SW6020	R59662	1	3/19/2012 8:07:00 PM		A

Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

Sequence Report**Run ID: ICP-MS3_120319B**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
BLANK STD 1	-----	SW6020	R59657	1	3/19/2012 10:42:00 AM		A
1/20 ppb STD.	-----	SW6020	R59657	1	3/19/2012 10:48:00 AM		A
10/200 ppb STD.	-----	SW6020	R59657	1	3/19/2012 10:54:00 AM		A
250/5000 ppb STD.	-----	SW6020	R59657	1	3/19/2012 11:00:00 AM		A
500/10000 ppb STD.	-----	SW6020	R59657	1	3/19/2012 11:05:00 AM		A
2000/25000 ppb ST	-----	SW6020	R59657	1	3/19/2012 11:11:00 AM		A
ICSA-120319	-----	SW6020	R59657	1	3/19/2012 11:27:00 AM		A
ICSAB-120319	-----	SW6020	R59657	1	3/19/2012 11:33:00 AM		A
ICV1-120319	-----	SW6020	R59657	1	3/19/2012 11:50:00 AM		A
ICB1-120319	-----	SW6020	R59657	1	3/19/2012 12:12:00 PM		A
CCV1-120319	-----	SW6020	R59657	1	3/19/2012 1:55:00 PM		A
CCB1-120319	-----	SW6020	R59657	1	3/19/2012 2:19:00 PM		A
MB-50959	-----	SW6020	50959	1	3/19/2012 2:24:00 PM	3/15/2012 8:33:29 AM	A
Filter Blank-50959	-----	SW6020	50959	1	3/19/2012 2:30:00 PM	3/15/2012 8:33:29 AM	A
LCS-50959	-----	SW6020	50959	1	3/19/2012 2:36:00 PM	3/15/2012 8:33:29 AM	A
LCSD-50959	-----	SW6020	50959	1	3/19/2012 2:41:00 PM	3/15/2012 8:33:29 AM	A
1203088-01E	HLSF-3839-HMW-008-0312	SW6020	50959	1	3/19/2012 2:52:00 PM	3/15/2012 8:33:29 AM	A
1203088-01E SD	HLSF-3839-HMW-008-0312	SW6020	50959	5	3/19/2012 2:58:00 PM	3/15/2012 8:33:29 AM	A
1203088-01E PDS	HLSF-3839-HMW-008-0312	SW6020	50959	1	3/19/2012 3:37:00 PM	3/15/2012 8:33:29 AM	A
1203088-01E MS	HLSF-3839-HMW-008-0312MS	SW6020	50959	1	3/19/2012 3:43:00 PM	3/15/2012 8:33:29 AM	A
1203088-01E MSD	HLSF-3839-HMW-008-	SW6020	50959	1	3/19/2012 3:49:00 PM	3/15/2012 8:33:29 AM	A
CCV2-120319	-----	SW6020	R59657	1	3/19/2012 4:06:00 PM		A
CCB2-120319	-----	SW6020	R59657	1	3/19/2012 4:34:00 PM		A

Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

Sequence Report**Run ID: ICP-MS3_120320B**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
BLANK STD 1	-----	SW6020	R59686	1	3/20/2012 10:39:00 AM		A
1/20 ppb STD.	-----	SW6020	R59686	1	3/20/2012 10:45:00 AM		A
10/200 ppb STD.	-----	SW6020	R59686	1	3/20/2012 10:50:00 AM		A
250/5000 ppb STD.	-----	SW6020	R59686	1	3/20/2012 10:56:00 AM		A
500/10000 ppb STD.	-----	SW6020	R59686	1	3/20/2012 11:02:00 AM		A
2000/25000 ppb ST	-----	SW6020	R59686	1	3/20/2012 11:07:00 AM		A
ICSA-120320	-----	SW6020	R59686	1	3/20/2012 11:24:00 AM		A
ICSA-B-120320	-----	SW6020	R59686	1	3/20/2012 11:29:00 AM		A
ICV1-120320	-----	SW6020	R59686	1	3/20/2012 11:46:00 AM		A
ICB1-120320	-----	SW6020	R59686	1	3/20/2012 12:07:00 PM		A
CCV1-120320	-----	SW6020	R59686	1	3/20/2012 1:25:00 PM		A
CCB1-120320	-----	SW6020	R59686	1	3/20/2012 1:51:00 PM		A
MB-50958	-----	SW6020	50958	1	3/20/2012 1:57:00 PM	3/15/2012 8:32:12 AM	A
MB-50959	-----	SW6020	50959	1	3/20/2012 2:02:00 PM	3/15/2012 8:33:29 AM	A
Filter Blank-50959	-----	SW6020	50959	1	3/20/2012 2:08:00 PM	3/15/2012 8:33:29 AM	A
LCS-50958	-----	SW6020	50958	1	3/20/2012 2:14:00 PM	3/15/2012 8:32:12 AM	A
LCSD-50958	-----	SW6020	50958	1	3/20/2012 2:19:00 PM	3/15/2012 8:32:12 AM	A
LCS-50959	-----	SW6020	50959	1	3/20/2012 2:25:00 PM	3/15/2012 8:33:29 AM	A
LCSD-50959	-----	SW6020	50959	1	3/20/2012 2:30:00 PM	3/15/2012 8:33:29 AM	A
1203088-01D	HLSF-3839-HMW-008-0312	SW6020	50958	200	3/20/2012 2:42:00 PM	3/15/2012 8:32:12 AM	A
1203088-01D SD	HLSF-3839-HMW-008-0312	SW6020	50958	1000	3/20/2012 2:47:00 PM	3/15/2012 8:32:12 AM	A
1203088-01E	HLSF-3839-HMW-008-0312	SW6020	50959	200	3/20/2012 2:53:00 PM	3/15/2012 8:33:29 AM	A
1203088-01E SD	HLSF-3839-HMW-008-0312	SW6020	50959	1000	3/20/2012 2:59:00 PM	3/15/2012 8:33:29 AM	A
1203088-01D PDS	HLSF-3839-HMW-008-0312	SW6020	50958	200	3/20/2012 3:21:00 PM	3/15/2012 8:32:12 AM	A
1203088-01E PDS	HLSF-3839-HMW-008-0312	SW6020	50959	200	3/20/2012 3:27:00 PM	3/15/2012 8:33:29 AM	A
1203088-01D MS	HLSF-3839-HMW-008-0312MS	SW6020	50958	200	3/20/2012 3:32:00 PM	3/15/2012 8:32:12 AM	A
1203088-01D MSD	HLSF-3839-HMW-008-	SW6020	50958	200	3/20/2012 3:38:00 PM	3/15/2012 8:32:12 AM	A
1203088-01E MS	HLSF-3839-HMW-008-0312MS	SW6020	50959	200	3/20/2012 3:44:00 PM	3/15/2012 8:33:29 AM	A
1203088-01E MSD	HLSF-3839-HMW-008-	SW6020	50959	200	3/20/2012 3:49:00 PM	3/15/2012 8:33:29 AM	A
CCV2-120320	-----	SW6020	R59686	1	3/20/2012 3:55:00 PM		A
CCB2-120320	-----	SW6020	R59686	1	3/20/2012 4:09:00 PM		A

Lab Order: 1203088
Client: Zia Engineering & Environmental
Project: HELSTF Construction Landfill

Sequence Report**Run ID: TITRATOR_120309A**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV2-120309	-----	M4500-H+ B	R59504	1	3/9/2012 10:01:00 AM	3/9/2012 10:01:00 AM	A
ICV1-120309	-----	M4500-H+ B	R59504	1	3/9/2012 10:03:00 AM	3/9/2012 10:03:00 AM	A
ICV-120309	-----	M4500-H+ B	R59504	1	3/9/2012 10:04:00 AM	3/9/2012 10:04:00 AM	A
1203076-01A DUP	-----	M4500-H+ B	50888	1	3/9/2012 10:07:00 AM	3/9/2012 9:45:00 AM	A
CCV1-120309	-----	M4500-H+ B	R59504	1	3/9/2012 10:08:00 AM	3/9/2012 10:08:00 AM	A
1203088-01F	HLSF-3839-HMW-008-0312	M4500-H+ B	50888	1	3/9/2012 10:59:00 AM	3/9/2012 10:40:00 AM	A
1203088-01F DUP	HLSF-3839-HMW-008-0312PD9	M4500-H+ B	50888	1	3/9/2012 11:01:00 AM	3/9/2012 10:40:00 AM	A
CCV2-120309	-----	M4500-H+ B	R59504	1	3/9/2012 11:02:00 AM	3/9/2012 11:02:00 AM	A

Run ID: TITRATOR_120309B

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120309	-----	M2320 B	R59509	1	3/9/2012 11:58:00 AM	3/9/2012 11:58:00 AM	A
LCS-50895	-----	M2320 B	50895	1	3/9/2012 12:02:00 PM	3/9/2012 11:40:00 AM	A
MB-50895	-----	M2320 B	50895	1	3/9/2012 12:03:00 PM	3/9/2012 11:40:00 AM	A
1203088-01F	HLSF-3839-HMW-008-0312	M2320 B	50895	1	3/9/2012 12:09:00 PM	3/9/2012 11:40:00 AM	A
1203088-01F DUP	HLSF-3839-HMW-008-0312PD9	M2320 B	50895	1	3/9/2012 12:16:00 PM	3/9/2012 11:40:00 AM	A
CCV-120309	-----	M2320 B	R59509	1	3/9/2012 12:21:00 PM	3/9/2012 12:21:00 PM	A

Run ID: TOC_120314A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120314	-----	M5310C	R59575	1	3/14/2012 9:17:00 AM	3/14/2012 8:30:00 AM	A
LCS-50940	-----	M5310C	50940	1	3/14/2012 9:37:00 AM	3/14/2012 8:30:00 AM	A
MB-50940	-----	M5310C	50940	1	3/14/2012 10:02:00 AM	3/14/2012 8:30:00 AM	A
1203088-01C	HLSF-3839-HMW-008-0312	M5310C	50940	1	3/14/2012 10:24:00 AM	3/14/2012 8:30:00 AM	A
1203088-01C MS	HLSF-3839-HMW-008-0312MS	M5310C	50940	1	3/14/2012 10:47:00 AM	3/14/2012 8:30:00 AM	A
1203088-01C MSD	HLSF-3839-HMW-008-	M5310C	50940	1	3/14/2012 11:11:00 AM	3/14/2012 8:30:00 AM	A
CCV-120314	-----	M5310C	R59575	1	3/14/2012 2:23:00 PM	3/14/2012 8:30:00 AM	A

Manual Integrations Tracking Form - DoD QSM 4.2 Requirement

Instrument ID: GCMS9

Data Folder: GCMS9_120312C

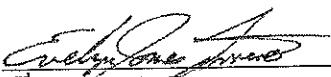
<u>Sample ID</u> ICAL, ICV, and CCV QC and Field Samples	<u>Analyte #1</u> Identification & Reason	<u>Analyte #2</u> Identification & Reason	<u>Analyte #3</u> Identification & Reason	<u>Analyte #4</u> Identification & Reason
1203043-01GMS	MI for benzoic acid because peak was partially integrated.			
1203043-01GMSD	MI for benzoic acid because peak was partially integrated.			
1203088-01GMS	MI for benzoic acid because peak was partially integrated.	MI for benzidine because peak was not integrated.		
1203088-01GMSD	MI for benzoic acid because peak was partially integrated.	MI for benzidine because peak was not integrated		

*Manually Integrated = MI


Analyst

3/19/2012

Date


2nd Level Review

3/20/2012

Date

Manual Integrations Tracking Form - DoD QSM 4.2 Requirement

Instrument ID: GCMS9Data Folder: GCMS9_120318A

<u>Sample ID</u>	<u>Analyte #1</u> Identification & Reason	<u>Analyte #2</u> Identification & Reason	<u>Analyte #3</u> Identification & Reason	<u>Analyte #4</u> Identification & Reason
ICAL, ICV, and CCV QC and Field Samples				
LCS-50902	MI for dimethylphenethylamine because peak was partially integrated.			
LCS-50965	MI for dimethylphenethylamine because peak was partially integrated.			
LCSD-50965	MI for dimethylphenethylamine because peak was partially integrated.			
1203043-01GMS	MI for dimethylphenethylamine because peak was partially integrated.			
1203043-01GMSD	MI for dimethylphenethylamine because peak was partially integrated.			
1203088-01GMS	MI for dimethylphenethylamine because peak was not integrated.			
1203088-01GMSD	MI for dimethylphenethylamine because peak was partially integrated.			

*Manually Integrated = MI

3/19/2012

Date

2nd Level Review

Date

Manual Integrations Tracking Form - DoD QSM 4.2 Requirement

Instrument ID: GCMS#7

ICAL: GCMS7_120117W.CAL

Data Folder: GCMS7_120309B

<u>Sample ID</u>	<u>Analyte #1</u>	<u>Analyte #2</u>	<u>Analyte #3</u>	<u>Analyte #4</u>
ICAL, ICV, and CCV QC and Field Samples	Identification & Reason	Identification & Reason	Identification & Reason	Identification & Reason
ICV-120309	Bromomethane – did not integrate entire peak.	Chloroethane – did not integrate entire peak.		
LCS-50889	Chloroethane – did not integrate entire peak.			

*Manually Integrated = MI

Karyn Lane
Analyst

3-12-12
Date

Karyn Lane
2nd Level Review

Date